ENVIRONMENTAL PROTECTION AGENCY

40 CFR Part 262

[FRL–6547–6]

RIN 2050–AE60

180-Day Accumulation Time Under RCRA for Waste Water Treatment Sludges From the Metal Finishing Industry

AGENCY: Environmental Protection Agency (EPA).

ACTION: Final rule.

SUMMARY: As part of the Common Sense Initiative, the Environmental Protection Agency (EPA) is today finalizing a cleaner, cheaper, and smarter opportunity for environmental protection for the Metal Finishing industry. EPA is promulgating regulations that allow large quantity generators of F006 sludges (certain sludges from the treatment of electroplating wastewaters) up to 180 days (or up to 270 days, as applicable) to accumulate F006 waste without a hazardous waste storage permit or interim status, provided that these generators recycle the F006 through metals recovery and meet certain conditions. On February 1, 1999, EPA proposed the 180-day (or 270-day, as applicable) accumulation time to address existing economic barriers to the recycling of F006 waste through metals recovery and to provide large quantity generators of F006 waste with an incentive to choose metals recovery instead of treatment and land disposal as their final waste management option. Today's final rule adopts that proposal, with some modifications made in response to public comments.

EFFECTIVE DATE: This final rule is effective on March 8, 2000.

ADDRESSES: Supporting materials are available for viewing in the RCRA Information Center (RIC), located at Crystal Gateway I, First Floor, 1235 Jefferson Davis Highway, Arlington, VA. The docket identification number is F–2000–F06F–FFFFF. The RIC is open from 9 a.m. to 4 p.m., Monday through Friday, excluding Federal holidays. To review docket materials, it is recommended that members of the public make appointments by calling (703) 603–9230. Members of the public may copy a maximum of 100 pages from any regulatory docket at no charge. Additional copies cost $0.15/page. The index and some supporting materials are available electronically. See the ''Supplementary Information'' section for information on accessing them.

FOR FURTHER INFORMATION CONTACT: For general information, contact the RCRA Hotline at (800) 424–9346 or TDD (800) 553–7672 (hearing impaired). In the Washington, DC, metropolitan area, call (703) 412–9810 or TDD (703) 412–3323. For more detailed information on specific aspects of this rulemaking, contact Kathy Blanton, Office of Solid Waste (5304W), U.S. Environmental Protection Agency, Ariel Rios Building, 1200 Pennsylvania Avenue NW, Washington, DC 20460–0002, (703) 605–0761, blanton.katherine@epa.gov

SUPPLEMENTARY INFORMATION:

Internet Availability

This rule is available on the Internet. You can find it at: *http://www.epa.gov/epaoswer/hazwaste/gener/f006acum.htm*

Preamble Outline

I. Authority

These regulations are promulgated under the authority of sections 2002 and 3002 of the Solid Waste Disposal Act, as amended by the Resource Conservation and Recovery Act of 1976 (RCRA), as amended by the Hazardous and Solid Waste Amendments of 1984 (HSWA), 42 U.S.C. 6912 and 6922.

II. Background

A. Purpose and Context of Final Rule

The Resource Conservation and Recovery Act (RCRA) directs EPA to promulgate standards for generators of hazardous waste as necessary to protect human health and the environment (RCRA Section 3002). Section 1003 of RCRA establishes a national objective of ''minimizing the generation of hazardous waste and the land disposal of hazardous waste by encouraging process substitutions, materials recovery, properly conducted recycling and reuse, and treatment.'' In response to these provisions, EPA has endeavored to develop regulations that promote legitimate recycling of solid and hazardous waste while protecting human health and the environment against the development and use of unsafe or sham recycling practices. On February 1, 1999, in an effort to promote the legitimate materials recovery of F006 hazardous wastes (sludges from the treatment of electroplating wastewaters) and to reduce the volume of F006 that is land disposed, EPA proposed to allow large quantity generators of F006 up to 180 days (or

270 days in certain circumstances) to accumulate F006 on-site without a RCRA permit or interim status, if the F006 waste would be recycled through metals recovery and if the generators complied with certain conditions while the F006 was being accumulated on-site (64 FR 4818). Today's final rule adopts that proposal, with some modifications made in response to public comments.

Today's final rule allows large quantity generators of F006 waste up to 180 days (or 270 days in certain circumstances) to accumulate F006 waste on-site, without a RCRA permit or interim status, as an incentive to encourage metals recovery and pollution prevention practices for this waste. Under this final rule, F006 wastes that are not destined for metals recovery would not be eligible for the 180-day (or 270-day, as applicable) accumulation time. In order to ensure that on-site accumulation of F006 waste is protective of human health and the environment, the management standards for 180-day (or 270-day, as applicable) on-site accumulation of F006 are the same as those that currently apply to 90-day on-site accumulation.

Currently, generators who generate greater than 1,000 kilograms of hazardous waste in a calendar month (i.e., large quantity generators (LQGs)) may accumulate hazardous waste on-site, without having to obtain a RCRA permit for the on-site accumulation activities, for a period of up to 90 days. Many generators of F006 wastewater treatment sludges have indicated that this 90-day accumulation limit restricts their ability to generate a large enough volume of F006 sludge to make recycling economically feasible when compared to treatment and land disposal. This is principally due to: (1) The relatively high cost of transportation of the hazardous sludge from a generator's establishment to a recycling or smelting facility (due, in part, to longer distances to metals recovery facilities and shipment of partial truckloads) and (2) the surcharge that metals recovery facilities generally charge generators and waste brokers managing small quantities of F006 waste.

In this final rule, EPA is allowing large quantity generators of F006 electroplating sludge to accumulate F006 waste on-site for up to 180 days (or 270 days under certain circumstances) in tanks, containers, or containment buildings without a RCRA permit or interim status, if the generator: (1) implements pollution prevention practices that reduce the amount of any hazardous substance, pollutant or contaminant entering F006 or otherwise released into the environment prior to its recycling, (2) recycles the F006 waste through metals recovery, (3) accumulates no more than 20,000 kilograms of F006 waste on-site at any one time, and (4) complies with the applicable management standards in the rule. This proposal does not change any other requirements applicable to generators of hazardous waste. Large quantity generators of F006 are only required to meet the conditions of today's rule if they accumulate F006 on-site, without a RCRA permit or interim status, for more than 90 days. However, the conditions of today's rule must be met for the entire accumulation period. Large quantity generators of F006 who accumulate waste for 90 days or less without a RCRA permit or interim status may continue to comply with the conditions of 40 CFR 262.34(a).

EPA is basing this final rule in part on discussions and information gathered as part of the Agency's Common Sense Initiative for the Metal Finishing Industry. The Common Sense Initiative, as well as broader changes in the regulation of F006 waste being considered as part of the Common Sense Initiative, are discussed in more detail below. The Agency notes that this final rule only affects the amount of time large quantity generators of F006 waste may accumulate that waste on-site, without a RCRA permit or interim status, prior to having it processed for metals recovery. At this time, EPA is making no other changes to the hazardous waste management standards governing generator activities. All other provisions governing large quantity generators under 40 CFR part 262 (e.g. unit specific standards, recordkeeping and reporting, and manifesting requirements) remain unchanged and in effect for large quantity generators of F006 waste.

B. Common Sense Initiative (CSI) for the Metal Finishing Industry and the National Advisory Council for Environmental Policy and Technology (NACEPT) Committee on Sectors

This final rule is an outgrowth of activities conducted under the EPA's Common Sense Initiative (CSI) for the metal finishing industry sector. These activities, including further work on F006 issues, are continuing as part of the Agency's Standing Committee on Sectors of the National Advisory Council for Environmental Policy and Technology (NACEPT).

The CSI, an innovative approach to environmental protection and pollution prevention, was established on October 17, 1994, through a charter pursuant to the Federal Advisory Committee Act (FACA). The goal of the CSI was to use multi-stakeholder consensus decision-making to recommend policy and program changes to the CSI Council and the EPA Administrator. EPA selected six industries to serve as CSI pilot industries: automobile manufacturing, computer and electronics, iron and steel, metal finishing, petroleum refining, and printing. These six industries comprise over 11 percent of the U.S. gross domestic product, employ over 4 million people, and account for over 12 percent of the toxic releases reported by United States industry. As such, they offered excellent opportunities to test and refine CSI concepts, to create environmental solutions that could operate across industries, and to identify opportunities to expand CSI concepts to other relevant industries.

CSI was organized through an advisory committee referred to as the ''CSI Council'' that was comprised of high-level representatives from various stakeholder groups, including all involved industries. For each industry, known as a ''sector'' in CSI, the CSI Council established a subcommittee of stakeholders to look for cleaner, cheaper, and smarter opportunities for environmental protection in that sector. Sector subcommittees and work groups met frequently to develop and discuss various projects, policy recommendations, and other issues. Sector options, proposals, issues, and data were forwarded to the CSI Council for further action. The CSI Council considered matters from the sector subcommittees and made recommendations to the Administrator. The CSI process produced better, tailored environmental protection strategies that were developed, in part, by the regulated community, in concert with regulatory agencies and public interest groups.

Since beginning their work in January 1995 the sector subcommittees developed nearly 40 projects involving more than 150 stakeholders who actively participated in sector subcommittees and subcommittee workgroups. Some of the projects were specific to individual sectors. Other projects explored solutions to common issues such as alternative flexible regulatory systems, pollution prevention, reporting, compliance, permitting, and environmental technology.

This final rule stems primarily from CSI efforts in the metal finishing industry sector. The metal finishing industry consists of more than eight thousand ''captive'' metal finishers that

operate within larger manufacturing facilities and operate within the financial structure of a larger company, as well as more than three thousand ''job shops'' (i.e. independent metal plating firms that complete jobs on contract). Seventy-one percent of job shops employ fewer than 20 employees and operate with limited capital and personnel. The industry is geographically diverse and is most concentrated in heavily industrialized states. Because of the cross-media impacts of their operations, metal finishers face a broad range of federal, state, and local environmental requirements (especially with regard to water use and waste disposal).

The CSI metal finishing subcommittee had 24 members representing metal finishing companies, trade associations, suppliers, environmental and community groups, organized labor, and state and local governments. Some of the representative organizations included the American Electroplaters and Surface Finishers Society, the National Association of Metal Finishers, the Natural Resources Defense Council, the American Federation of Labor and Congress of Industrial Organizations (AFL–CIO), the Barrio Planners of Los Angeles, the Water Environment Federation, and the Association of Metropolitan Sewerage Agencies. As part of its work under CSI, the metal finishing subcommittee developed a set of ambitious voluntary performance goals to promote pollution prevention and environmental management beyond what is currently required for the industry under federal regulations (known as the Strategic Goals Program). The goals address resource utilization, hazardous emissions, economic paybacks, and compliance costs.

As a means towards meeting these goals, the metal finishing subcommittee endorsed 14 projects and supported an additional CSI small business sector project. In addition to these 14 projects, the action plan also contains ''enabling actions'' that all stakeholders have committed to undertake to help the industry meet the Strategic Goals. The focus of today's rule, allowing large quantity generators of F006 waste to accumulate the sludge for up to 180 days (or 270 days, as applicable), is an enabling action identified that would remove some unnecessary barriers to recycling and would promote the goals of the CSI effort. Specifically, the final rule is an outgrowth of the CSI stakeholders' efforts and is designed to encourage more recycling of F006 waste through metals recovery.

Another of the enabling actions is a project to examine whether the physical nature of F006 waste has changed as a result of process improvements in the last twenty years, and if so, whether some type of regulatory, administrative, or other relief for the management of F006 waste is warranted. Phase I of this study was a *Metal Finishing F006 Benchmark Study* issued by EPA in September 1998. This study is included in the docket for this rulemaking. Phase II of the study is now in process. This phase involves identifying additional data needs, if any, and examining potential regulatory and administrative strategies that may promote metals recovery of F006 waste, encourage pollution prevention practices related to the generation of F006 waste, and reduce or remove possible RCRA barriers to metals recovery of F006 waste.

The CSI charter expired on February 17, 1999. However, EPA and the CSI Council felt it was important for EPA to continue to receive stakeholder input on its progress toward a sector-based approach for environmental protection. The Agency found that the National Advisory Council for Environmental Policy and Technology (NACEPT) was the appropriate vehicle to help the Agency incorporate the sector-based approach to environmental protection into EPA's core functions. The NACEPT Standing Committee on Sectors' first meeting was April 15–16, 1999, in Washington, DC. The Committee on Sectors' role is to provide advice and recommendations to the Administrator through the NACEPT Council. Three of the six CSI Subcommittees (Printing, Petroleum Refining, and Metal Finishing) have been set up as work groups under the new NACEPT Standing Committee on Sectors. The Committee on Sectors will provide the workgroups with a forum to continue their work. Thus, the metal finishing sector's further work on F006 issues is continuing under the NACEPT structure. The workgroups are not authorized to advise EPA directly; they will provide advice to the Standing Committee on Sectors which, in turn, provides advice and recommendations to the Administrator through the NACEPT Council.

C. Current Accumulation Time for Large Quantity Generators

The current standards under 40 CFR part 262 for generators of hazardous waste who generate greater than 1,000 kilograms of hazardous waste per calendar month (large quantity generators (LQGs)) limit the amount of time hazardous waste can be accumulated on-site without a RCRA permit. Under the existing 40 CFR 262.34, LQGs may accumulate any quantity of hazardous waste on-site for up to 90 days without having to obtain a RCRA permit. This provision was established to provide generators sufficient time in all reasonable situations for waste accumulation to occur prior to waste management without interfering with generator manufacturing processes. 51 FR 25487 (July 14, 1986).

Under the existing 90-day accumulation rule, LQGs must comply with certain unit-specific standards for accumulation units (e.g. standards for tanks, containers, containment buildings, and drip pads), and standards for marking and labeling, preparedness and prevention, contingency plan and emergency procedures, personnel training, and land disposal restrictions (40 CFR 262.34(a)). Large quantity generators may also petition the EPA Regional Administrator for an extension of up to 30 days to the 90-day accumulation time limit due to unforeseen, temporary, and uncontrollable circumstances, on a case-by-case basis under 40 CFR 262.34(b).

As outlined above, and explained below in Section III, the Agency is promulgating regulations to allow large quantity generators of F006 wastewater treatment sludges to accumulate the waste prior to metals recovery for up to 180 days (or 270 days in certain circumstances) without a RCRA permit, provided the generators comply with certain conditions. Today's final rule makes no changes to the existing conditions for 90-day accumulation under the current regulations, and does not in any way re-open those regulations for review.

III. Rationale for Allowing 180 (or 270) Days to Accumulate F006 Wastes Recycled by Metals Recovery

A. Increased Recycling of F006

Today's rule is designed to provide incentives to large quantity generators of F006 waste to recycle their F006 waste through metals recovery.

EPA data indicates that about 40 percent of large quantity generators of F006 waste potentially affected by this final rule recycle their waste; the remainder use land disposal. EPA believes that some large quantity generators of F006 may be choosing land disposal over recycling for economic reasons, since transportation and costs for recycling by metals recovery can be more expensive for many large quantity generators of F006 than the costs for land disposal.

Of the estimated 1,934 large quantity generators of F006, an estimated 1,483

generally do not generate enough F006 to fill a hazardous waste transporter truck within 90 days. Because under the current regulations large quantity generators may only accumulate hazardous waste on-site without a RCRA permit for 90 days, these 1,483 large quantity generators must ship partial truck loads. The transportation costs for these partial truck loads are disproportionately higher than they would be for full truck loads because there is generally some fixed cost associated with having a truck pick up a load of F006 waste, regardless of whether the truck is picking up a partial or full load. For the fixed cost portion of the load, the cost per unit of F006 waste for shipping the waste is more for partial loads than full loads (i.e., the cost per unit of F006 waste for the fixed cost portion of the truck is twice as much for a half-filled truck compared to a full truck). Allowing large quantity generators of F006 waste to accumulate a full truck load of such waste will therefore decrease the cost per unit of F006 waste associated with shipping the waste off-site for metals recovery.

In the United States, there are significantly more landfills than metals recovery facilities that handle F006 wastes. Because there are fewer recycling facilities in the U.S. that can recover metals from F006 waste than landfills that accept F006 waste for disposal, the distances from generators' sites to metals recovery facilities are generally greater than to landfills. Accordingly, many generators seek to minimize shipping costs (which are usually based on a per-mile unit cost) by finding the nearest RCRA permitted treatment, storage or disposal facility, which is most often a landfill. Thus, many large quantity generators may not choose metals recovery for their F006 waste due to the higher costs associated with longer transport distances to recycling facilities as compared to landfills.

In order to facilitate more F006 waste metals recovery and less F006 land disposal, EPA has, in this final rule, provided an accumulation period of up to 180 days (or 270 days, as applicable) only if a large quantity generator chooses to recycle F006 for metals recovery. EPA estimates, based on its analysis of waste generation and management patterns in the industry, that 1,483 more large quantity generators of F006 waste will be able to accumulate larger amounts (some of which will be full truck loads) and ship less frequently during the 180-day (or 270-day, as applicable) period. Shipping a fuller truck load of F006 waste will make F006 waste metals recovery more cost effective for a significant percentage of large quantity generators who currently land dispose F006, thereby encouraging more F006 waste metals recovery. Shipping a fuller truck load of F006 waste will also make F006 waste metals recovery even more cost effective for large quantity generators who are already recycling F006 waste. In the Regulatory Impact Analysis for this rulemaking (available in the docket for this rulemaking), the Agency estimated that 72% to 89% of the 1,483 generators affected by this rule will take advantage of the flexibility provided in today's final rule. F006 waste metals recovery also promotes resource conservation because metals recovered from the sludges may serve as alternative feedstocks for primary metals in production and manufacturing processes.

In addition, EPA believes that the rationale supporting the 180-day (or 270-day, as applicable) accumulation time in today's rule is consistent with the rationale for the 90-day accumulation rule. In promulgating the 90-day accumulation rule, EPA allowed large quantity generators to accumulate waste on-site without a RCRA permit or interim status, partly because such activity was consistent with typical generator activities. The 180-day (or 270-day, as applicable) accumulation time in today's rule will facilitate the appropriate handling of F006 waste by a large quantity generator prior to its being recycled for metals recovery. EPA believes that accumulating F006 waste on-site for up to 180 days, or up to 270 days, as applicable (to facilitate more recycling through metals recovery), is more consistent with generator activities than with typical treatment, storage, or disposal facility activities, because the 180-day (or 270-day, as applicable) accumulation is part of the initial handling and consolidation of hazardous waste that a generator undertakes prior to moving that waste on for recovery or for final treatment, storage, or disposal. Today's proposed rule maintains the rationale of the 90-day accumulation rule.

B. Protective of Human Health and the Environment

The provisions of today's rule also ensure that on-site accumulation of F006 for 180 days (or 270 days under certain circumstances) is protective of human health and the environment. The same conditions that apply to 90-day accumulation of any hazardous waste apply to the 180-day (or 270-day, as applicable) accumulation of F006. The F006 waste must be accumulated in tanks, containers, or containment buildings that meet applicable management standards.[1] These units and relevant standards are designed to minimize releases of hazardous waste to the environment. F006 waste generators commonly accumulate F006 waste in super sacks (sacks that are reinforced woven resin and designed to accommodate bulk shipments) or bulk accumulation containers. These super sack containers are designed to prevent releases of F006 (see 62 FR 25998, 26013 (1997)). The regulations governing accumulation of hazardous waste in containers require such measures as ensuring that the container is closed except when adding or removing waste, and that the container is never handled in a manner which may cause it to rupture or leak.[2] In addition, as with 90-day accumulation, in order to accumulate F006 on-site for 180 days (or 270 days, as applicable), large quantity generators of F006 are required to follow personnel training, preparedness and prevention, and contingency plan and emergency procedure requirements. With these conditions in place, EPA believes that allowing large quantity generators of F006 waste to accumulate F006 for 180 days (or 270 days as applicable) does not pose any significantly increased potential harm to human health or the environment.

EPA received a number of comments relating to the Agency's rationale for taking this action. Some of the key comments and EPA's responses to these comments are summarized below and in subsequent sections. The docket for today's rule contains responses to all comments. EPA received some comments arguing that accumulating F006 on-site for 180 days (or 270, as applicable) could result in increased risks to human health and the environment. One commenter suggested that the longer accumulation time will create more potential for a release through deterioration, damage, or mismanagement, and that F006 wastes pose particular risks of harm when accumulated for longer periods because many of these wastes are corrosive and highly alkaline, resulting in a higher risk of drum deterioration and leaking if not properly managed. Another commenter stated that having larger amounts of F006 on-site may result in increased risks because human or equipment malfunction may affect more

[1] Today's final rule does not allow accumulation of F006 waste on drip pads (as is provided in the existing accumulation regulations in 40 CFR 262.34) because F006 waste is not managed on drip pads, nor does the Agency believe that it would be appropriate to accumulate F006 waste on drip pads.

[2] 40 CFR 265.173.

than one super sack (container) which will therefore cause a release of more F006. This commenter was also concerned that the proposal would allow additional on-site treatment of F006, resulting in increased air emissions and increased chronic health risks. This commenter believes that much of the F006 treatment occurs in exempted wastewater treatment units (WWTUs) and accumulation units subject to subpart CC (which only addresses volatile organic air emissions), and that EPA should improve subpart CC standards and/or repeal the WWTU exclusion.

EPA disagrees that accumulating F006 on-site for a longer period of time, and in greater amounts, will lead to a greater likelihood of releases, and believes this rule is most likely to result in reduced releases overall. As discussed above, large quantity generators of F006 operating under the terms of today's rule must comply with the same unit-specific and general site operation provisions (e.g. personnel training, contingency planning, emergency response) that apply to generators operating under the existing 90-day regulations.

The unit-specific standards are not based on the length of time a hazardous waste is accumulated. Rather, these standards are essentially the same for small quantity generators of F006 (180–270 day accumulation), large quantity generators of F006 (90 day accumulation), and F006 permitted facilities (where the length of time a waste is stored may be a year or longer). With respect to the general site operation standards, EPA believes the 90-day accumulation standards are also sufficient to ensure protection of human health and the environment for F006 accumulation. In general, these standards require a generator to evaluate his or her particular site circumstances (which would include, for example, the length of time the F006 remains on-site and the total quantity accumulated on-site at any one time) and implement training, planning, and response measures appropriate to those circumstances. For example, in order to be in compliance with § 262.34(g)(4)(v) (which incorporates the existing 90-day general site operation provisions), generators accumulating F006 on-site under the terms of today's final rule should consider whether their current general site operation procedures (e.g. personnel training, contingency planning, etc.) should be modified in light of having more F006 on-site than they would under the 90-day limit.

Thus, EPA believes that these provisions are protective of human health and the environment even when the F006 waste is accumulated for more than 90 days. If an F006 waste is corrosive (F006 was not listed as a hazardous waste due to any corrosive characteristics), the Agency believes that the required inspections will ensure that any deterioration of containers caused by corrosion will be discovered prior to any significant release into the environment.

EPA also does not agree that having larger amounts of F006 on-site is likely to result in increased risks because human or equipment malfunction may affect more than one super sack (container) which will, therefore, cause a release of more F006. The *F006 Benchmark Study* indicates, and other information confirms, that most generators dewater F006 into a cake-like material to remove free liquids and to decrease the costs of accumulation, shipping, recycling and/or disposal. In the event of a spill of dewatered F006 sludge (e.g., a release caused by a rip or tear in a super sack), EPA believes the potential risk of harm to human health and the environment would be low compared to a spill of a free liquid or dust. Other available information corroborates this conclusion, indicating that the cake-like consistency of dewatered F006 sludge ensures that a spill of F006 waste, even of multiple containers, could be contained relatively easily. Spilled dewatered F006 sludge resulting from a release caused by a rip or tear in a super sack (or break in another accumulation unit) retains its solid-like consistency (because it still retains some moisture) and is not likely to run off as a free liquid or disperse in the wind like a dust, which will also result in a lower likelihood of air emissions from F006 accumulated on-site.

In addition, EPA believes the 180-day (or 270-day, as applicable) accumulation time could decrease the potential for releases of hazardous constituents from the handling of F006 waste. A recent review of damage incidents associated with the management of F006 waste (contained in the docket for this rulemaking) indicates that most of the reported incidents of releases of F006 waste were associated with the transfer of F006 waste from accumulation to transport vehicle, from transport vehicle to receiving facility, or while in transport. Because the 180-day (or 270-day, as applicable) accumulation time will mean that the F006 waste is transferred from generator to transporter to receiving facility less often, and that fewer shipments of F006 waste will be made, today's final rule should decrease the potential for releases of F006 waste into the environment. Similarly, workers will be required to handle the F006 waste less often (because transfers will occur less often), thereby decreasing their potential exposure to the F006 waste.

Finally, EPA does not agree with the comment that today's rule will lead to additional treatment activities resulting in significantly increased chronic health risks. For purposes of this discussion, it is important to distinguish between the treatment of electroplating wastewater and the treatment of electroplating wastewater treatment sludge. Most on-site ''treatment'' that occurs at metal finishing sites is treatment of electroplating wastewaters (not wastewater treatment sludge) in wastewater treatment units (WWTUs)—exempt units not affected by this rule. Increased wastewater generation, and subsequent wastewater treatment, would only be expected to occur as a result of increased process output (i.e., increased metal finishing activity), but this rule will not affect process output, nor will it change generators' treatment of wastewaters. The process output at electroplating facilities is dictated by market demand for electroplating services not by any factors related to how long the electroplater can accumulate the waste on-site. In addition, this rule does not affect exempt WWTUs. Thus issues related to wastewater treatment in exempt WWTUs are outside the scope of this rulemaking.

EPA also does not expect significant, if any, increases in treatment of wastewater treatment sludge as a result of this rule. Although the commenter is correct that the rule will allow longer accumulation time, this does not lead to the inference that they will undertake more treatment. Generators treat electroplating wastewater treatment sludge for a specific purpose and there is no reason to believe they would undertake additional treatment activities simply because they can hold the waste for a longer period of time. First, data from the F006 Benchmark Study indicate, and other available information confirms, that most F006 generators already conduct sludge drying or dewatering. Sludge drying and dewatering reduce the weight of the sludge and thus are usually conducted to save on transportation, disposal and recovery costs, which are largely based on weight. Because transportation and recovery costs for most affected facilities will be less under the final rule than they are currently, this rulemaking does not create an additional economic incentive to conduct additional sludge treatment. Second, this rule will not

result in increased production at electroplating shops and consequently, is not expected to increase the volume of electroplating wastewater sludge generated, or the rate at which it is generated. The process output at electroplating facilities is dictated by market demand for electroplating services not by any factors related to how long the electroplater can accumulate the waste on-site. Third, electroplaters generally do not have excess space to put in additional treatment units. If there were excess space, information available to EPA indicates that plant managers would opt to install additional production units. Finally, new treatment units would require additional investment and resources to install and operate, with little clear benefit to be derived from these added costs, compared to the advantages of installing additional production equipment.

Although unlikely, if, as a consequence of this rule, a generator were to conduct any additional on-site treatment of electroplating wastewater treatment sludge in accumulation units, EPA does not agree that such treatment will result in increased risk. With the exception of the changes in accumulation periods contained in the rule, all other conditions for 90-day accumulation apply. EPA believes the standards for accumulation which the generator of F006 must meet ensure protection of human health and the environment, even if the amount of F006 accumulated (including treatment) on-site increases. In order to accumulate F006 without a RCRA permit, F006 generators operating under the terms of this rule must comply with the same unit-specific and general site operation (*e.g.,* personnel training, contingency planning, emergency response) provisions that apply to generators of F006 operating under the existing 90-day regulations. The unit-specific standards are not based on the amount of F006 hazardous waste accumulated. To the contrary, these standards are essentially the same for small quantity generators of F006 (180–270 day accumulation), large quantity generators of F006 (90 day accumulation), and F006 permitted facilities. The commenter is correct that the 40 CFR part 265 subpart CC standards do not control inorganic emissions. However, metals, with the exception of mercury, which is unlikely to be found in significant concentrations in F006, have a high melting point and low volatility and are therefore unlikely to release volatile emissions. Thus, EPA does not agree there will be increased risk from on-site treatment of F006 in accumulation units simply because generators may accumulate a greater quantity of F006 under this rule.

Finally, to accumulate F006 under the terms of this rule, generators must implement pollution prevention measures, which occur prior to generation of F006. Because some of these pollution prevention activities are designed to reduce the toxicity of the F006 generated at a particular facility, they should also result in reduced risks from any on-site treatment activities.

Some commenters were concerned that sludge drying and dewatering, which were identified in the proposal as pollution prevention practices, could increase air emissions. In response to this and other comments, EPA has narrowed the pollution prevention condition in the final rule to include ''practices that reduce the amount of any hazardous substances, pollutants or contaminants entering F006 or otherwise released to the environment prior to its recycling.'' This change, and explanatory language in the preamble (see section IV.A.), clarifies that sludge drying and dewatering (or any other measure that merely reduces the volume of the waste) are not considered pollution prevention for purposes of meeting the pollution prevention condition of this rule. Thus, as indicated above, EPA does not expect this activity to increase as a result of this rule.

IV. Special Conditions for Accumulating F006 for 180 (or 270) Days

In today's final rule, large quantity generators of F006 waste are allowed up to 180 days (or up to 270 days, under certain circumstances) to accumulate F006 waste on-site in tanks, containers or containment buildings without a RCRA permit or interim status, provided that the generator: (1) Has implemented pollution prevention practices that reduce the amount of any hazardous substances, pollutant, or contaminant entering F006 or otherwise released into the environment prior to its recycling, (2) recycles the F006 waste by metals recovery, (3) accumulates no more than 20,000 kilograms of F006 waste at any one time, and (4) complies with the applicable management standards in this rule. A detailed discussion of the first three conditions follows in the next three subsections of this preamble. Further detail about the applicable management standards is in Section V.E. of this preamble.

A. Pollution Prevention Practices

The primary goal of today's rule is to encourage more recycling through metals recovery of F006. It also has the goal of increasing pollution control measures, prior to the generation of F006, which can make F006 less hazardous for subsequent management and more amenable for metals recovery. Thus, today's rule includes a condition that in order to accumulate the F006 on-site for 180 days (or 270 days, as applicable), large quantity generators of F006 must implement pollution prevention practices that reduce the amount of any hazardous substance, pollutant or contaminant entering F006 or otherwise released into the environment prior to its recycling. In response to comments, this condition of the final rule has been slightly modified from the proposal. This modification is discussed below.

Within the metal finishing industry, generators have implemented a variety of pollution prevention practices (including product substitution, drag-out and counter-current flow rinse systems, flow restrictors, evaporation recovery systems, plating bath reuse, ion exchange systems, and segregation of wastewater streams) to improve process efficiency, cut waste generation and waste management costs, and improve compliance. Table 1 summarizes several categories of pollution prevention practices that are commonly used within the metal finishing industry. These practices reduce the volume and toxicity of the F006 waste generated or make the F006 waste more amenable for metals recovery. Any generator that already has pollution prevention practices in place which reduce the amount of hazardous substances, pollutants or contaminants entering F006 or otherwise entering the environment prior to its recycling would not be required to implement additional pollution prevention practices.

For example, rinse water reduction techniques reduce the volume of effluents discharged from metal finishing processes. Drag-out reduction measures reduce the volume and can reduce the toxicity of effluents discharged from metal finishing processes. Implementation of these methods of pollution prevention promotes protection of human health and the environment because the F006 sludge produced is reduced in volume or toxicity.

Pollution prevention measures such as these may, however, also increase the concentration of pollutants in F006 sludge, including recyclable metals (*e.g.*

copper, zinc, nickel) and non-recyclable toxic pollutants (*e.g.* cyanide, cadmium). Increasing the concentration of recoverable metals in F006 sludge can increase the sludge's value as a secondary material, but increasing the concentration of non-recyclable pollutants (*e.g.* cyanide, cadmium), which pass through the recovery process and must be properly managed and disposed of can pose potential problems for the management and handling of recycling residues. Of course, this relationship between pollution prevention practices and metals recovery is highly dependent on the specific production process and the pollution prevention practices that are employed. For example, some recovery technologies such as ion exchange work better on dilute wastewaters than on wastewaters with higher metal content.

Chemical substitution pollution prevention measures reduce or eliminate toxic substances that are used in the plating process and found in the wastes and therefore are desirable from an environmental perspective wherever they can appropriately be applied. For example, trivalent chromium can be substituted for highly toxic hexavalent chromium in a few applications. In many applications, this substitution may not be possible. Many metal finishers have reduced or eliminated cyanide and cadmium use by substituting other materials, or by ceasing certain plating operations. Chemical substitution pollution prevention practices are generally more protective of human health and the environment because they eliminate or reduce the amount of toxic pollutants in the sludge, and produce sludge that is more amenable for metals recovery (by reducing the amount of non-recyclable toxic pollutants in the sludge).

The number and type of pollution prevention measures used by individual generators vary broadly. The most common pollution prevention measures include drag-out and rinse water reduction methods, which may improve effluent quality and the amount of metals recovered from F006 sludge. The data available to EPA suggest that chemical substitution pollution prevention measures are used less frequently than rinse water and drag-out reduction techniques. EPA encourages generators to make greater progress in reducing the quantity of non-recyclable toxic pollutants that pass through recovery processes and are ultimately disposed of in landfills. The Agency, therefore, urges generators operating under the provisions of today's rule to implement chemical substitution pollution prevention measures to reduce or eliminate the amount of toxic pollutants (*e.g.* cadmium, cyanide, arsenic, hexavalent chromium, or halogenated or chlorinated solvents) contained in F006 sludge that are not economically recoverable from F006 waste.

In its proposed rule, EPA placed the following condition in § 262.34(g)(1) to promote source reduction and recycling of F006 wastes:

''(1) The generator has implemented pollution prevention practices that reduce the volume or toxicity of the F006 waste or that make it more amenable for metals recovery.''

EPA requested comment generally on this condition and asked specifically whether more specific pollution prevention practices should be included in this rule. One commenter believed that EPA should be more specific in its pollution prevention condition in order to make the condition more meaningful. Several other commenters did not believe that a generator should be required to implement any specific set of pollution prevention practices in order to qualify for use of the 180-day (or 270-day, as applicable) accumulation time, and that a generator that already implements pollution prevention practices should not have to adopt new ones in order to qualify for the longer accumulation period. In addition, many commenters felt that the proposal did not clearly define ''pollution prevention,'' that the proposal allowed activities that are not source reduction activities (*e.g.* sludge dewatering and sludge drying), and that EPA should consider dropping the pollution prevention requirement altogether (or requiring waste minimization instead). One commenter questioned how a generator would demonstrate compliance with this condition.

For purposes of this rule, EPA defines ''pollution prevention'' to mean the source reduction of metal and other toxic raw materials that would otherwise enter a waste stream or be released to the environment prior to recycling, treatment, or disposal. EPA agrees with the commenters who expressed concern that the proposed condition could allow activities that would not be source reduction activities. The wording of the proposed condition (''pollution prevention practices that reduce the *volume or toxicity* of the F006 waste *or that make it more amenable for metals recovery*'' (emphasis added)) may have allowed activities that are clearly not source reduction activities. For example, activities that merely reduce waste volume, such as sludge dewatering and sludge drying, do make F006 more amenable for metals recovery, but they are not considered source reduction, and thus they are not pollution prevention activities. Table 1, discussed in the preamble to the proposed rule and in today's preamble, illustrates a large variety of pollution prevention practices that are widely used in the metal finishing industry to reduce volume or toxicity of materials that enter the waste stream (*i.e.* prior to waste generation), and also make it more amenable to metals recovery. Filter presses, sludge dewatering and sludge drying practices, incorrectly identified as pollution prevention measures in the proposed rule, merely remove water after the F006 is generated to reduce weight and volume and to make the sludge more amenable to subsequent recovery techniques. Filter presses, sludge dewatering and sludge drying practices are not consistent with the widely accepted definition of pollution prevention through source reduction contained in the Pollution Prevention Act of 1990.[3] A generator using only filter presses, dewatering or sludge drying practices would not be considered in compliance with the pollution prevention condition in today's rule. Therefore, in response to this and other comments, the Agency has modified the regulatory language to include a more precise description of ''pollution prevention'' and the scope of activities that may be implemented in accordance with this condition. Section 262.34(g)(1) has been revised to read:

''(1) The generator has implemented pollution prevention practices that reduce the amount of any hazardous substances, pollutants or contaminants entering F006 or otherwise released to the environment prior to its recycling;'' This revised language in today's rule removes the unintended ambiguity that was contained in the previous language and is consistent with the definition of pollution prevention through source reduction contained in the Pollution Prevention Act.

EPA agrees with commenters who warn against requiring a specific set of pollution prevention practices. The technical and economic variables that affect the feasibility of using one or more specific pollution prevention practices at a particular generator's site are so broad and complex that EPA does not believe it is possible or appropriate to specify by rule any particular approach for all generators. The best approach for one generator may be quite different than the best approach for

[3] Pub. L. 101–508, November 5, 1990 (Omnibus Budget Reconciliation Act of 1990), as amended by Pub. L. 102–389, October 6, 1992.

another generator, and the Agency believes it is important to allow generators the flexibility to maximize the effectiveness of their pollution prevention activities by selecting and designing the approach that best fits their specific situation. Under today's rule, large quantity generators of F006 waste may implement pollution prevention practices that are best suited to their specific metal finishing processes and plating operations. It is important to note that EPA believes that generators that are already implementing pollution prevention practices should not have to adopt new pollution prevention practices to comply with this rule. However, the Agency encourages, but does not require, metal finishers to thoroughly explore additional available pollution prevention techniques and to implement those that most effectively reduce the amount of any hazardous substance, pollutant or contaminant in F006 prior to onsite recycling activities that occur after the sludge is generated (*e.g.* dewatering and sludge drying).

EPA believes it is overly broad to refer to the pollution prevention condition of today's rule as ''waste minimization.'' Waste minimization includes both source reduction and recycling. By using the term ''pollution prevention,'' EPA intends to capture only one element of ''waste minimization,'' *i.e.* source reduction, which is consistent with the definition contained in the Pollution Prevention Act. As mentioned previously, this requirement was included in the rule because pollution prevention measures can make F006 less hazardous for subsequent management and possibly more amenable for metals recovery. Today's rule, therefore, retains the condition that generators must implement pollution prevention measures.

Regarding what kind of demonstration must be made to verify compliance with the pollution prevention condition, the final rule does not include any recordkeeping or reporting requirements specific to this condition. Generators accumulating F006 on-site under the terms of this rule should be prepared to demonstrate, at the request of EPA or the State, that they are implementing pollution prevention measures for F006. Such a demonstration could include, for example, indicating to the requesting official particular technologies or process changes that have been installed to reduce the amount of toxic materials entering the on-site wastewater treatment system or directly discharging into navigable waters. EPA believes it is relatively simple to determine through discussion or direct observation whether a particular facility is using pollution prevention technologies. The Metal Finishing Workgroup, for example, used a checklist to profile operations in 29 facilities (which is available in the docket for this rule). Also, many State pollution prevention and compliance assistance offices have developed checklists for assessing pollution prevention activities, particularly for metal finishing operations (see, for example, http://www.p2.org). Consequently, EPA believes regulated industry can easily identify what practices would qualify as pollution prevention, and that EPA and State field inspectors, compliance assistance personnel, and pollution prevention technical assistance staff can easily determine whether or not companies are using pollution prevention in compliance with this rule.

TABLE 1.—EXAMPLES OF POLLUTION PREVENTION MEASURES

Method	Pollution prevention benefits
Improved Operating Practices	
Remove cadmium and zinc anodes from bath when it is idle. Anode baskets can be placed on removable bars that are lifted from tank by an overhead hoist.	—Eliminates cadmium/zinc buildup causing decanting of solution due to galvanic cell set up between steel anode basket and cadmium/zinc anodes. —Maintains bath within narrow Cd/Zn concentration providing more predictable plating results.
Eliminate obsolete processes and/or unused or infrequently used processes.	—Reduces risks associated with hazardous chemicals. —Creates floor space to add countercurrent rinses or other P2 methods. —Creates safer and cleaner working environment.
Waste stream segregation of contact and non-contact wastewaters	—Eliminates dilution of process water prior to treatment which can increase treatment efficiency. —Reduces treatment reagent usage and operating costs.
Establish written procedures for bath make-up and additions. Limit chemical handling to trained personnel. Keep tank addition logs.	—Prevents discarding process solutions due to incorrect formulations or contamination. —Improves plating solution and work quality consistency. —Improves shop safety.
Install overflow alarms on all process tanks to prevent tank overflow when adding water to make up for evaporative losses.	—Minimizes potential for catastrophic loss of process solutions via overflow. —Prevents loss of expensive chemicals.
Conductivity and pH measurement instruments and alarm system for detecting significant chemical losses.	—Identifies process solution overflows and leaks before total loss occurs. —Alerts treatment operators to potential upset condition. —Reduces losses of expensive plating solutions.
Control material purchases to minimize obsolete material disposal	—Reduces hazardous waste generation. —Reduces chemical purchases.
Use process baths to maximum extent possible before discarding. Eliminate dump schedules. Perform more frequent chemical analysis.	—Prevents discarding of solutions prematurely. —Reduces chemical costs. —Improves work quality with chemical adjustments of baths.
Reduce bath dumps by using filtration to remove suspended solids contamination.	—Extends bath life. —Reduces solid waste generation by reusing filter cartridges. —Improves bath performance.
Process/Chemical Substitution	
Substitute cyanide baths with alkaline baths when possible	—Eliminates use of CN.

TABLE 1.—EXAMPLES OF POLLUTION PREVENTION MEASURES—Continued

Method	Pollution prevention benefits
Substitute trivalent chromium for hexavalent chromium when product specifications allow.	—Reduces/eliminates use of hexavalent chromium.
Eliminate use of cadmium plating if product specifications allow	—Elminates the use of cadmium.
Drag-Out Reduction Methods That Reduce Waste Generation	
Install fog rinses or sprays over process tanks to remove drag out as rack/part exits bath.	—Can inexpensively recover a substantial portion of drag out and does not require additional tankage. —Reduces pollutant mass loading on treatment processes, treatment reagent usage, and resultant sludge generation.
Minimize the formation of drag out by: redesigning parts and racks/barrels to avoid cup shapes, etc. that hold solution; properly racking parts; and reducing rack/part withdraw speed.	—May improve treatment operation/removal efficiency. —Reduces chemical purchases and overall operating costs.
Rinse Water Reduction Methods That Reduce Waste Generation	
Install flow restrictors to control the flow rate of water	—Reduces water and aids in reducing variability in wastewater flow. —Is very inexpensive to purchase and install.
Install conductivity or timer rinse controls to match rinse water needs with use.	—Coordinates water use and production when properly implemented. —Provides automatic control of water use.
Use counter-current rinse arrangement with two to four tanks in series depending on drag-out rate.	—Can achieve major water reduction. —Has high impact on water bills. —May reduce the size of recovery/treatment equipment that is needed.
Track water use with flow meters and accumulators. Keep logs on water use for individual operations.	—Identifies problem areas including inefficient processes or personnel. —Helps management to determine cost for individual plating processes.

B. Metals Recovery

This final rule is designed to create an incentive for large quantity generators of F006 waste to choose recycling through metals recovery instead of treatment and land disposal as their final waste management option for F006 waste. As discussed in Section III.A., EPA is providing 180 days (or 270 days under certain circumstances) for accumulation to eliminate the impediment to F006 recycling created by the 90-day limit for on-site accumulation. The longer accumulation period is available only if the accumulated F006 waste is recycled through metals recovery. In response to comments, EPA has made one change to this requirement from the proposal.

As proposed, only large quantity generators of F006 who send the F006 waste off-site for metals recovery (as well as meeting the other conditions) would have been allowed 180 days (or 270 days, as applicable) to accumulate those wastes on-site. At the time of proposal, the Agency stated that, although reduced transportation costs would not affect on-site metals recovery, there may be other problems related to on-site metals recovery that a longer accumulation period could address. For example, it may be necessary to accumulate enough F006 waste to make some type of on-site batch metals recovery process more cost effective. The Agency, therefore, requested comment on whether large quantity generators who recycle their F006 on-site by metals recovery should also be allowed 180 days to accumulate those wastes on-site.

The Agency received several comments on the proposal in favor of including large quantity generators of F006 who recycle through on-site metals recovery. Some pointed out that the decrease in transportation of F006 waste over highways may lessen overall potential risks to human health and the environment. One commenter stated that on-site recovery methods may prove environmentally superior to off-site methods, but that some recovery methods could result in increased cross-media impacts which may not be adequately controlled by the standards imposed by the proposal. This commenter suggested that EPA should further investigate these and other issues rather than expand the rule.

After considering these comments, EPA has decided to modify the rule to include large quantity generators of F006 who recycle F006 on-site for metals recovery. EPA is not currently aware of any generators who are presently performing metals recovery on-site. Members of the metal finishing industry stated during the CSI process that, due to space considerations at their electroplating sites, installation of on-site metals recovery equipment would be unlikely, and, if space did become available, they would be more likely to install extra electroplating equipment rather than recycling equipment. While EPA does not have any data indicating whether on-site recycling will increase, the Agency is concerned that a rule providing a longer accumulation period only for off-site metals recovery may inadvertently create an incentive against utilizing, and thereby discourage the development of, on-site metals recovery. This result may be of particular importance because, as some commenters suggested, on-site metals recovery may be environmentally superior to off-site metals recovery. The Agency believes that the technologies that would be employed for on-site recycling of F006 would be the same as those presently used for off-site recycling of F006 that are appropriate for small volumes. Also, the unit-specific regulatory controls would be the same. The Agency further believes that the recycling of F006 through metals recovery on-site may be more protective overall of human health and the environment because it will require less transportation of the F006, and transportation-related activities have been the cause of most of the F006 releases to date. In addition, including on-site recovery in today's rule is consistent with the primary goal of encouraging recycling over treatment and land disposal. Because the 180-day accumulation period would only be available for large quantity generators who recycle F006 for metals recovery, and we are not aware that on-site metals recovery is currently occurring or contemplated, EPA expects that generators who are not sending F006 off-site for metals recovery would only

take advantage of the 180-day accumulation period where it would actually facilitate on-site metals recovery. Therefore, today's final rule allows large quantity generators of F006 180 days (or 270 days, as applicable) to accumulate those wastes prior to metals recovery performed either on-site (*i.e.*, at the generator's site) or off-site, provided all other conditions of today's final rule are met. The standards for 180-day (or 270-day, as applicable) accumulation included in today's rule will ensure that on-site accumulation is protective of human health and the environment, whether that accumulation precedes on-site or off-site metals recovery. Only the amount of time large quantity generators may accumulate F006 (without a permit or interim status) on-site if they are recycling F006 on-site for metals recovery is affected by today's final rule.

EPA received several comments on other issues related to the metals recovery condition of the rule. Several commenters sought clarification of whether F006 must be sent directly to a metals recovery facility in order to meet the metals recovery condition of the rule. Specifically, questions were raised regarding intermediate processors, waste brokers, and other intermediate handlers. Additionally, some commenters questioned whether facilities that recycle wastes into animal feed or soil amendments and primary metals smelters are considered metals recovery facilities.

In response, EPA notes that the proposed condition that F006 must be ''sent off-site for metals recovery'' did not require that F006 be sent directly from the generator to the metals recovery facility. It was never EPA's intent to preclude generators from sending F006 for metals recovery by way of intermediate handlers (*e.g.*, persons conducting transportation, intermediate storage, repackaging or reshipping) or intermediate processors (*e.g.*, persons conducting pre-metals recovery processing steps). Rather, EPA believes including such multi-step management processes in the rule will ensure that the largest number of generators are able to take advantage of the rule, and that the amount of F006 recycled is maximized. The Regulatory Impact Analysis (RIA) conducted in support of the proposed rule included both metal recovery facilities and intermediate processors as shipment destinations when estimating transportation and other costs. Specifically, data used in the model that estimated transportation costs was based on observed shipments to metals recovery from the 1995 Biennial Report Survey. These observations included both shipments directly to metals recovery facilities and to intermediate processors who subsequently ship to metals recovery facilities. Similarly, the cost model used fees charged both by metals recovery facilities and by intermediate processors. The RIA demonstrates that generators who are able to accumulate larger loads of F006 will experience lower transportation costs and administrative costs whether they are shipping directly to a metals recovery facility or to an intermediate processor. Since the transportation patterns would be the same, the same transportation cost analysis would also apply to intermediate handlers who simply repackage or consolidate F006 prior to delivery to a metals recovery facility.

Today's rule retains this metals recovery condition essentially as proposed (it has been modified to include on-site metals recovery). Specifically, EPA considers F006 sent by a generator to an intermediate processor to be sent for ''metals recovery'' if the intermediate processor then sends the processed material to a facility which extracts the metals (such as a smelter or a metallurgical extraction facility). For purposes of this rule, EPA defines an intermediate processor as a recycler who handles the F006 after the generator and before the ultimate metals extraction facility (*e.g.*, the smelter) and who makes the F006 more amenable for metals recovery through processes such as drying, blending, and/or concentrating. Large quantity generators of F006 who perform intermediate processing activities on-site before sending the waste to a metals reclamation facility are also allowed up to 180 days (or 270 days, if applicable) to accumulate that waste under today's final rule. However, generators performing intermediate processing on-site who need to hold the waste after the accumulation period has expired are required to have a RCRA permit.

In response to the question of whether primary metals smelters and facilities that recycle wastes into animal feed or soil amendments are considered metals recovery facilities, under EPA regulations, recycling is defined as either the use, reuse or reclamation of a material (40 CFR 261.1(c)(7)). EPA defines reclamation as either recovery of a useful product or regeneration of a product for its original use (40 CFR 261.1(c)(4). Under EPA's hazardous waste regulations, recovery is defined as the recovery of *distinct components of a secondary material as separate end products* (40 CFR 261.1(c)(5)(i)). Examples of recovery and regeneration are recovering copper from electroplating sludge like F006 or regenerating a spent solvent for its original use. When distinct components, such as metals, are not separated from the material in which they are constituents, recovery has not occurred. Thus, if F006 were to be incorporated directly into either animal feed or fertilizer without first separating the metals, this would not constitute metals recovery. Therefore, F006 sent for this type of recycling would not be sent for ''metals recovery.'' However, as long as legitimate metals recovery occurs (*i.e.*, distinct components of the F006 waste are recovered as separate end products) the rule would apply, regardless of the ultimate use of the end products.

Regarding primary metals smelters, one commenter appeared to be unclear about whether F006 processed at smelters was considered to be used or reused as an ingredient in an industrial process to make a product, or used or reused as an effective substitute for a commercial product (see 40 CFR 261.2(e)(1)(i) and (ii)). If F006 were used or reused in these ways, it would not be considered a solid or hazardous waste and would therefore would not be subject to hazardous waste managements controls, including use of a hazardous waste manifest. However, the Agency believes that these use/reuse exemptions do not apply to F006 sent to a primary smelter for metals recovery.

40 CFR 261.2(e)(1)(i) specifically provides that materials are not considered to be used or reused as an ingredient in an industrial process to make a product if they are being reclaimed. 40 CFR 261.1(c)(5)(i) provides additionally that materials will not satisfy the ''use as an ingredient'' exclusion of 40 CFR 261.2(e)(1)(i) ''if distinct components of the material are recovered as separate end products (as when metals are recovered from metal-containing secondary materials.)'' For these reasons, EPA is today clarifying that F006 sent to a smelter is generally not eligible for the exclusions at 40 CFR 261.2(e)(1)(i) and 261.2(e)(1)(ii) since the purpose of sending F006 to a smelter is to recover its metal components. The material would therefore generally be considered a solid and hazardous waste and subject to all applicable RCRA hazardous waste management controls (including use of a hazardous waste manifest).

Another commenter on the metals recovery condition of the rule stated that neither the proposal nor the existing regulatory framework are structured so that only legitimate materials recovery is encouraged. According to this commenter, under the

existing framework legitimacy determinations are largely self-implementing and misuse will not be avoided until there are clear and more objective legitimacy criteria and/or there is greater and more timely review of the legitimacy claims.

The same commenter stated that several factors result in an implementation structure incapable of ensuring that the materials recovery practices employed under the proposal will be legitimate. These include the wide variety of F006 operations; the wide array of constituents in the wastes (many of which would not be recycled); the lack of generator resources; and the lack of Agency oversight. In addition, according to the commenter, nothing in the proposal requires the generator to segregate waste streams so that toxics ''along for the ride'' are minimized.

EPA agrees that recovery of materials from F006 wastes, like any recovery of materials, must be legitimate to prevent participants from disposing of materials rather than actually recovering and reusing them. EPA also agrees that this rule will encourage F006 recovery operations.

EPA, however, does not agree that its current rules and policies to prevent ''sham'' recycling operations are insufficient. For example, the Agency has adequately described the F006 legitimacy criteria in existing regulatory and policy documents (see discussion below). In addition, any revision to the criteria is outside the scope of this rulemaking. EPA has promulgated many rules that encourage recycling which rely on the existing policy and regulatory structure to ensure that the recycling involves legitimate reuse of materials. See, for example, the conditional exemption for secondary materials used for recovery within the primary mineral processing industry in 40 CFR 261.4(a)(16) (which requires that materials be ''legitimately recycled'' without promulgating new rules to define the term). Although EPA acknowledges that this scheme is complex, EPA believes that recycling, under current regulatory restraints and policy, is beneficial, and its regulations have long reflected this. The commenter has not presented any data or examples showing that the current approach is generally inadequate, nor has the commenter submitted any information showing that factors unique to F006 recovery operations make the current approach less effective or less suitable than it is for other wastes.

EPA has existing policy guidance on legitimacy (see discussions at 53 FR 522 (January 8, 1988), 54 FR 17013 (May 6, 1987), 50 FR 638 (January 4, 1985) and F006 Recycling Memo, signed by Sylvia Lowrance on April 26, 1989). As described in this guidance, evaluating legitimacy can in some cases require complex analysis of site specific characteristics and factors to determine whether the secondary material is ''commodity-like.'' The presence of toxics ''along for the ride'' is a factor in this determination. EPA currently believes that determining whether recycling processes are legitimate requires case-by-case evaluations of many factors that vary depending on the specific materials and processes used. EPA does acknowledge that such evaluations are often complex and time-consuming since F006 wastes and recovery operations involve a fairly wide variety of materials and operations which must be evaluated on a case-by-case basis.

In addition, the commenter did not present any specific proposal for improving assessment of the legitimacy of F006 recovery operations that could be applied in this rulemaking. It would be difficult (if not impossible) to evaluate F006 legitimacy generically rather than on a case-by-case basis. EPA is not aware of any information undercutting its longstanding view that this case-by-case approach has been effective at ensuring legitimate recycling. In the regulatory language being promulgated in this final rule (see new § 262.34(g)(2)), EPA has added the word ''legitimate'' to clarify that the F006 must be processed using legitimate recycling in order to meet this condition of the rule. The addition of the word ''legitimate'' does not change any existing Agency regulations or policies on recycling, but merely emphasizes the Agency's intent.

Another issue raised by this commenter was that less legitimate recycling would occur as a result of the pollution prevention condition because there will be more toxics ''along for the ride.'' EPA acknowledges that it is possible that some pollution prevention practices that increase the concentration of non-recoverable toxics in the waste may be implemented under this rule, but the amount of non-recoverable toxics in the wastes (as opposed to the concentration of such toxics) will not increase. However, the Agency encourages metal finishers to carefully and thoughtfully select pollution prevention practices that will reduce levels of toxics that are not recovered, based on the specifics of their processes and design. The Agency also encourages implementing agencies to actively discuss the issues with metal finishers and to assist them, where possible, in choosing pollution prevention technologies. However, whether less legitimate recycling will occur depends on the pollution prevention technology used and the composition of the F006 sludge. As discussed previously, legitimacy determinations are better made on a case-by-case basis, and it is possible that in a situation where an F006 sludge contains a very high concentration of non-recoverable toxic constituents, the Agency could decide that it is not a legitimate recycling scenario under its existing policies on legitimacy.

Finally, given that most recycling processes generate residues, the Agency notes that generators may want to discuss the management of any residues from recycling operations with the recyclers to ensure that they are managed properly and to avoid any future liability from improper management (*e.g.,* under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA)).

C. Limit on the Amount of F006 Waste That Can Be Accumulated

As discussed above, the purpose of today's rule is to remove an existing regulatory impediment to increased recycling of F006. The current 90-day limit on accumulating waste without a RCRA permit is preventing some large quantity generators of F006 from choosing recycling as a final waste management option. Although large quantity generators are not currently subject to any limits on how much waste they can accumulate on-site at any one time, many generators' process generation rates are such that they do not accumulate sufficient quantities of F006 to make recycling the waste a cost-effective option. EPA believes that it is appropriate to limit the flexibility provided by today's rule to what is reasonably necessary to advance the recycling objectives of the proposal. For this reason, the proposal, and today's final rule, include a limit on the total amount of F006 waste that may be accumulated on-site at any time. In response to comments, EPA has modified this portion of the rule from the proposal.

In the proposed rule, the Agency proposed setting a limit of 16,000 kilograms of F006 that could be accumulated on-site. The Agency proposed this limit because we believed that this amount was approximately the size of a truckload used to transport bulk solids. EPA requested comment on whether it was appropriate to impose any quantity limit to the on-site accumulation of F006 and whether

16,000 kg was an appropriate limit (as opposed to a different amount).

EPA received several comments on these issues. One commenter felt that the limit should be 6,000 kg, which is consistent with the quantity limit for small quantity generators. All other commenters on this issue stated that 16,000 kilograms did not accurately reflect the true size of a truckload for bulk solids (the physical form in which F006 is most commonly transported) based on experience with transportation of F006. In response, although EPA believes it is appropriate to limit the amount of F006 that can be accumulated on-site at any one time, EPA does not believe that the provisions for small quantity generators necessitate a similar 6,000 kg limit for large quantity generators, nor is it an appropriate amount in light of the recycling objectives of the rule. In addition, EPA proposed the 16,000 kg limit believing that it accurately represented a full truckload. In considering the comments disputing this assumption, the Agency investigated the issue further, and located existing information [4] which is consistent with many commenters' views on the weight of bulk solids that can be shipped in a full truckload. According to this confirmatory information, 20,000 kg is more representative of the full amount of bulk solids that would fill a truck. As discussed above, the purpose of the quantity limit is to delineate the minimum amount reasonably necessary to advance the recycling objectives of the proposal. Therefore, since the main goal of this final rule is to allow large quantity generators of F006 to accumulate enough F006 to facilitate the most economically efficient off-site shipment, the Agency has modified the rule to allow 20,000 kilograms of F006 to be accumulated on-site within the 180-day (or 270-day, as applicable) accumulation period in order to accomplish the maximum recycling benefit under this final rule.

Once a generator has accumulated 20,000 kilograms of F006 waste (regardless of whether the waste has been accumulated for less than 180 days, or 270 days if applicable), the generator is required to ship the F006 waste off-site for metals recovery, conduct metals recovery on-site, obtain an exception to the quantity limit under 40 CFR 262.34(i), or obtain a RCRA permit.

[4] U.S. EPA, Office of Regulatory Enforcement (DPRA, SAIC), Estimating Costs for the Economic Benefits of RCRA Noncompliance, September 1997, p. 5–3.

The Agency also requested comments on whether the accumulation limit should apply to the total quantity of F006 waste accumulated on-site or to the quantity of each separate mono-metal F006 waste stream (or other F006 waste streams segregated on the basis of metal content) that must be sent off-site to different metals recovery facilities. This request was based on the idea that a F006 generator could make F006 waste more amenable for metals recovery by generating mono-metal sludges.

EPA received several comments concerning the accumulation of mono-metal F006 sludges. Some commenters opposed expanding the proposal in this way, citing, among other things, concerns with increased risk and enforcement challenges. EPA also received comments requesting that the Agency apply the accumulation limit to each separate mono-metal F006 sludge generated at a site to facilitate metals recovery from each of these mono-metal sludges. The Agency encourages segregation of waste streams to make wastes more amenable to metals recovery, and does not believe that doing so would necessarily increase risks. However, at this time, the Agency does not have a standard for differentiating among the different types of F006 wastes, and none of the commenters suggested any such standard. Without further information, it would be extremely difficult to develop a standard that would be effective and implementable. For example, no definition exists for what constitutes a mono- or bi-metal sludge or how one F006 waste sludge differs compositionally from another F006 waste sludge (*i.e.,* what levels of other metals would be acceptable). Lacking such definitions or standards, it would not be possible at this time for the Agency to develop a regulatory provision allowing separate accumulation quantity limits for different F006 waste types. In addition, implementing and enforcing a separate accumulation limit for different types of F006 wastes would impose a significant burden on both generators and regulators with little or no corresponding benefit.

Finally, data from the *F006 Benchmark Study* shows, and other available information confirms, that very few metal finishers currently utilize separate wastewater treatment units to generate sludges that are compositionally different to improve recovery (*e.g.,* mono- or bi-metal sludges). Thus, at this time EPA believes that very few generators would benefit from separate limits for separate mono-metal sludges (or other sludges that differ from one another by composition). Past discussions with metal finishers in the CSI effort (as well as observations at metal finishing plants) corroborate this conclusion, indicating that most small metal finishing shops generally do not have the space or capital to install separate wastewater treatment units, filter presses or containers in which to manage mono-metal sludges.

Thus, although the Agency strongly encourages segregation of waste types to improve the recyclability of F006, for the reasons discussed above the quantity limit in the final rule applies to the total amount of F006 accumulated on-site at any one time, as was proposed.

V. Summary of Final Rule

A. Scope and Applicability

This final rule is limited to large quantity generators of F006 waste who accumulate F006 on-site for more than 90 days without a RCRA permit or interim status.

In 40 CFR 261.31, F006 waste is defined as:

> Wastewater treatment sludges generated from electroplating operations, except from the following processes: (1) Sulfuric acid anodizing of aluminum; (2) tin plating on carbon steel; (3) zinc plating (segregated basis) on carbon steel; (4) aluminum or zinc-aluminum plating on carbon steel; (5) cleaning/stripping associated with tin, zinc, and aluminum plating on carbon steel; and (6) chemical etching and milling of aluminum.

In listing electroplating wastewater treatment sludges as hazardous waste, EPA identified several hazardous constituents, including cadmium, hexavalent chromium, nickel, and complexed cyanides that could pose a substantial hazard to human health and the environment if the sludge was mismanaged. The potential hazards associated with the constituents of concern in the sludge and the potential for improper management of the electroplating wastewater treatment sludges served as the basis for listing the sludge as hazardous waste F006. The listing status of the waste is not affected by this final rule.

The physical form of F006 waste can generally be described as a mixed metal hydroxide wastewater treatment precipitate which is 24 to 50 percent solids by weight. Other physical forms of this material can include spent ion exchange columns or iron precipitation solids. F006 sludges may contain metals with commercial value that can be recovered from the sludges. The metals recovered from these sludges are most often concentrates and intermediate materials that require further processing

before a commercially usable metal is produced. Often, the metals contained in these industrial sludges are recovered in the form of a metal oxide or salt (e.g., lead oxide, lead chloride, lead sulfate) through High Temperature Metals Recovery (HTMR) such as smelting operations.

Any large quantity generator (generators of 1,000 kilograms or more of hazardous waste per calendar month) who generates F006 may accumulate the F006 waste generated on-site for up to 180 days (or 270 days, under certain circumstances) without a RCRA permit or interim status, provided they meet the conditions of this final rule. Large quantity generators of F006 are only required to meet the conditions of today's rule if they accumulate F006 on-site, without a RCRA permit or interim status, for more than 90 days; however, the conditions of today's rule must be met for the entire accumulation period. In response to comments, EPA has modified the regulatory language to clarify that 40 CFR 262.34(g), (h), and (i) apply only to generators who accumulate F006 on-site for more than 90 days, but not more than 180 (or 270) days. Any large quantity generator who generates some quantity of F006 hazardous waste may accumulate the F006 waste under the terms of today's final rule. The 180-day (or 270-day, if applicable) accumulation time, however, is only applicable to the F006 waste destined for metals recovery. Other hazardous waste accumulated on-site (including any F006 which will not be recycled by metals recovery) must be accumulated in accordance with the existing provisions for large quantity generators (e.g. 262.34(a), or parts 264, 265, and 270).

Currently, large quantity generators are allowed only 90 days to accumulate hazardous wastes on-site without a RCRA permit, and there is no limit on the amount of hazardous waste that can be accumulated on-site within that 90-day time period. In order to accumulate hazardous waste on-site without a RCRA permit, these large quantity generators must also comply with a number of unit-specific standards (e.g., tank and container standards), and standards for marking and labeling, preparedness and prevention, contingency plan and emergency procedures, personnel training, and land disposal restrictions, in order to accumulate hazardous waste on-site without a RCRA permit. The Agency is not changing any of the existing regulations applicable to large quantity generators in today's final rule, except to allow 180 days (or 270 days, as applicable) for accumulation of F006 wastes with a corresponding limit of 20,000 kilograms on the amount of F006 waste that may be accumulated on-site at one time. Large quantity generators of F006 must still comply with the standards required for all large quantity generators to accumulate hazardous waste on-site without a permit: unit-specific standards (e.g., tank and container standards) for accumulation units; marking and labeling, preparedness and prevention, contingency plan and emergency procedures, personnel training, and land disposal restrictions. These conditions are explained in more detail below in Section V. E. of this preamble.

Today's final rule does not apply to small quantity generators of hazardous waste (between 100–1000 kg per calendar month) and we have added language to the rule to clarify this. Currently, small quantity generators are allowed 180 days to accumulate hazardous wastes on-site without a RCRA permit or interim status. However, the existing regulations do not allow small quantity generators to accumulate more than 6,000 kilograms of hazardous waste on-site at any one time without a RCRA storage permit. Small quantity generators accumulating hazardous waste without a RCRA permit must also comply with unit-specific and general facility standards that are similar to those for large quantity generators. Today's final rule does not change any of the provisions currently applicable to small quantity generators accumulating hazardous waste without a permit.

The Agency believes that there is no need to specifically allow small quantity generators to take advantage of the benefits of today's final rule. First, these generators are already allowed to accumulate their waste on-site for up to 180 days (or 270 days, if applicable); thus, the 180-day time limit of today's rule is unnecessary for them. Second, the Agency believes that any small quantity generators who generate hazardous waste at a rate which would cause them to exceed their existing 6,000 kilogram on-site accumulation limit will actually be large quantity generators, and therefore will be able to take advantage of the flexibility in this final rule for accumulating larger quantities of F006, as long as they meet the conditions of today's rule.

B. Special Conditions for 180-Day (or 270-Day) Accumulation Time

Today's rule includes several conditions that do not typically apply to the accumulation of hazardous waste by large quantity generators. These conditions are that the generator: (1) Has implemented pollution prevention practices that reduce the amount of any hazardous substances, pollutants or contaminants entering F006 or otherwise released to the environment prior to its recycling, (2) recycles the F006 waste by metals recovery, and (3) accumulates no more than 20,000 kilograms of F006 waste at any one time. EPA has included these conditions in the rule to ensure that the recycling objectives of this rule are met, and to ensure that the flexibility provided by today's rule is limited to that which is reasonably necessary to achieve those recycling objectives. Each of these conditions is discussed in further detail in Section IV above.

C. Additional Accumulation Time Under Certain Circumstances

1. Transport 200 Miles or More

Under today's final rule, large quantity generators of F006 waste have up to 270 days to accumulate F006 waste on-site without a RCRA permit or interim status if the generator must transport the waste, or offer the waste for transport, a distance of 200 miles or more for off-site metals recovery. The generator must still meet the other conditions of today's rule—i.e., implement pollution prevention practices that reduce the amount of any hazardous substances, pollutants or contaminants entering F006 or otherwise released to the environment prior to its recycling, recycle the F006 waste by metals recovery, not accumulate more than 20,000 kilograms of F006 waste at any one time, and comply with the applicable management standards in the proposed rule.

As with the other provisions of this final rule, this provision is intended to allow large quantity generators sufficient time to accumulate enough F006 waste to make recycling this waste by metals recovery more cost effective. Shipping F006 waste to a metals recovery facility that is located more than 200 miles away will cost more than shipping F006 waste to a local (i.e., less than 200 miles away) hazardous waste landfill. For those large quantity generators of F006 waste that do not accumulate enough F006 waste to fill a truck load (i.e., 20,000 kilograms of F006 waste) within 180 days and are located more than 200 miles from a metals recovery facility, treatment and disposal of the F006 waste in the local hazardous waste landfill may be a less expensive management option than metals recovery. For those large quantity generators of F006 waste that are located long distances from a metals recovery

facility, allowing up to 270 days for accumulation is reasonable to allow generators to accumulate more F006 waste to get closer to a full truckload for off-site shipment. The 270-day accumulation period will be particularly helpful for large quantity generators of relatively small amounts of F006 waste (i.e., those that do not accumulate more than 20,000 kilograms of F006 waste in 180 days and that must ship the F006 off-site more than 200 miles to a metals recovery facility) and may provide them with an incentive to send their F006 waste to a metals recovery facility rather than to a treatment and disposal facility.

2. Unforeseen, Temporary, and Uncontrollable Circumstances

Today's final rule also provides for an extension of the accumulation period if the generator's F006 waste must remain on-site for longer than 180 days (or 270 days, if applicable) due to unforeseen, temporary, and uncontrollable circumstances. Under these circumstances, the generator may request that the EPA Regional Administrator or authorized state grant an extension of up to 30 days. This provision is intended to provide the generator with some temporary relief until the unforeseen, temporary, and uncontrollable circumstances can be rectified. The Agency has previously identified the following circumstances as possible rationales for granting this extension: a facility's refusal to accept waste, transportation delays, or labor strikes (see 47 FR 1248, 1249, January 11, 1982). These extensions will be granted at the discretion of the EPA Regional Administrator or the authorized state on a case-by-case basis. This provision is the same as the provision for large quantity generators in the existing regulations at 40 CFR 262.34(b).

In addition to this extension to the time limit, exceptions to the quantity limit are also available at the EPA Regional Administrator's discretion. Because this final rule sets an accumulation limit of 20,000 kilograms of F006 waste that can be accumulated on-site at any one time, today's final rule also allows a large quantity generator to request permission to accumulate more than 20,000 kilograms of F006 waste if more than 20,000 kilograms must remain on-site due to unforeseen, temporary, and uncontrollable circumstances. The rationale for requiring additional time to accumulate F006 waste on-site due to unforeseen, temporary, and uncontrollable circumstances is equally applicable for accumulating more than 20,000 kilograms under the same kinds of circumstances.

In response to a comment, the regulatory text in this final rule has been modified from the proposal to clarify that, in addition to time limit extensions, accumulation limit exceptions are available.

D. Summary of Applicable Management Standards

Under today's final rule, the same standards applicable to 90-day on-site accumulation of hazardous waste under 40 CFR 262.34, other than the length of time that large quantity generators of F006 waste can accumulate the waste on-site without a RCRA permit,[5] apply to 180-day (or 270-day, as applicable) accumulation of F006 waste. These include technical standards for units used to accumulate hazardous wastes, recordkeeping standards to document the length of time hazardous wastes are accumulated on-site, preparedness and emergency response procedures, and personnel training. While EPA is not changing any of these existing standards in today's rulemaking, the Agency would like to note that in order to be in compliance with § 262.34(g)(4)(v) (which incorporates the existing general site operation provisions), generators accumulating F006 on-site under the terms of today's rule may need to consider whether their current general site operation procedures (*e.g.,* personnel training, contingency planning) should be modified in light of having more F006 on-site than they would under the 90-day limit. The existing management standards as they apply to large quantity generators of F006 waste under this final rule are summarized below. The Agency is not making any changes or amendments to these standards in today's final rule, other than clarifying that these standards apply to large quantity generators of F006 accumulating the waste up to 180 days (or 270 days where applicable) without a RCRA permit.

1. Accumulation Units

A large quantity generator of F006 waste may only accumulate the F006 waste on-site for up to 180 days (or 270 days, if applicable) in tanks, containers, or containment buildings which comply with the unit-specific technical standards of 40 CFR part 265 for containers (subpart I), tanks (subpart J), and containment buildings (subpart DD). In addition, generators accumulating F006 in containers or tanks must also comply with the air emission standards of 40 CFR part 265, subparts AA, BB, and CC.

The unit-specific standards in 40 CFR part 265 include provisions for the design, installation and general condition of each unit. The requirements governing each type of unit include standards for ensuring the compatibility of the waste and the unit and special requirements for ignitable, reactive or incompatible wastes. In addition, there are provisions for performing inspections to monitor for leaks and deterioration of the unit and for proper response to and containment of releases. For example, the container standards specify that a container holding hazardous waste must always be closed except when adding or removing waste and also that the container must not be handled in a manner which may cause it to rupture or leak. As with 90-day accumulation, large quantity generators of F006 waste that comply with the applicable regulatory provisions may treat the waste in the accumulation unit without a RCRA permit during the 180-day (or 270-day, if applicable) accumulation period (see 51 FR 10168, March 24, 1986).

2. Measures to Ensure Wastes Are Not Accumulated for More Than 180 Days (or 270 Days)

Large quantity generators of F006 waste operating under the terms of today's rule must also comply with provisions which indicate that the length of time the wastes remain on-site in certain accumulation units must not exceed 180 days (or 270 days if applicable) from the date the waste is generated. For those accumulating F006 in containers, the date upon which each period of accumulation begins must be clearly marked and visible for inspection on each container. Those who choose to accumulate F006 in containment buildings must, among other things, develop a written description of the procedures to ensure that each waste volume remains in the unit for no more than 180 days (or 270 days, as applicable). Today's final rule does not impose documentation standards for generators of F006 waste in addition to those already required for large quantity generators accumulating F006 waste up to 90 days under the existing regulations (see 40 CFR 262.34(a)(2)).

EPA recognizes that there may be circumstances under which a generator may discover that he will not be able to recycle F006 waste that he has accumulated on-site for more than 90 days in anticipation of recycling. The

[5] Today's final rule will not affect any RCRA Subtitle C requirements for generators of F006 waste, other than the changes to 40 CFR 262.34 specified in this final rule.

generator may then be forced to send this material for disposal. In those instances EPA encourages self-disclosure of this violation to the appropriate regulatory agency under the terms of either the Policy on Compliance Incentives for Small Businesses (June 10, 1996) or Incentives for Self-Policing: Discovery, Disclosure, Correction and Prevention of Violations (the ''audit policy,'' December 22, 1995). Many states have adopted similar policies for self-disclosed violations. The generator should be prepared to demonstrate that the F006 waste was accumulated for more than 90 days based on a good faith belief that he would be able to send it to a recycling facility.

3. Labeling and Marking Accumulation Units

Large quantity generators of F006 waste operating under the terms of today's rule are required to clearly label or mark each tank or container used to accumulate hazardous waste with the words ''Hazardous Waste.''

4. Preparedness and Prevention (40 CFR Part 265, Subpart C)

Under today's final rule, large quantity generators of F006 waste who accumulate F006 waste on-site under the terms of today's rule for up to 180 days (or 270 days, as applicable) must comply with subpart C of part 265 which contains standards for facility preparedness and prevention. These generator facilities must be maintained and operated in a manner that minimizes the possibility of fire, explosion, or any unplanned release of hazardous waste or hazardous waste constituents to the environment. The standards specify that generator facilities must generally be equipped with emergency devices, such as an internal communications or alarm system, a telephone or other device capable of summoning emergency assistance, and appropriate fire control equipment, unless none of the wastes handled at the generation site requires a particular kind of equipment. Equipment must be tested and maintained, as necessary, to assure its proper functioning. All persons involved in hazardous waste handling operations must have immediate access to either an internal or external alarm or communications equipment, unless such a device is not required.

Additionally, large quantity generators are also required to maintain sufficient aisle space to allow for the unobstructed movement of personnel and equipment to any area of the facility operations in an emergency, unless aisle space is not needed for any of these purposes. Large quantity generators also must attempt to make arrangements with police, fire departments, state emergency response teams, and hospitals, as appropriate, to familiarize these officials with the layout of the generator's site and the properties of each type of waste handled at the site in preparation for the potential need for the services of these organizations. If state or local authorities decline to enter into such arrangements, the owner or operator must document the refusal.

5. Contingency Plan and Emergency Procedures (40 CFR Part 265, Subpart D)

Large quantity generators of F006 waste who accumulate that waste on-site for up to 180 days (or 270 days, as applicable) under the terms of today's final rule must comply with the contingency plan and emergency procedures provisions of 40 CFR part 265, subpart D. A large quantity generator's contingency plan must include, where necessary, a description of the generator's planned response to emergencies at the facility, any arrangements with local and state agencies to provide emergency response support, a list of the generator's emergency response coordinators, a list of the generator's emergency equipment, and an evacuation plan. Requirements for distributing and amending the contingency plan are specified. In addition, a facility emergency coordinator must be either present, or on call, whenever the facility is in operation.

Provisions for emergency procedures specified in subpart D of part 265 include immediate notification of employees and local, state, and Federal authorities of any imminent or actual emergencies; measures to preclude the spread of fires and explosions to other wastes; proper management of residues; rehabilitation of emergency equipment and notification of authorities before operations are resumed; and recordkeeping and reporting to EPA on the nature and consequences of any incident that requires implementing the contingency plan.

6. Personnel Training (40 CFR 265.16)

As finalized in today's rule, large quantity generators of F006 waste who accumulate that waste on-site for up to 180 days (or 270 days, as applicable) under the terms of today's rule are subject to the provisions for personnel training in 40 CFR 265.16. These requirements are designed to ensure that personnel are adequately prepared to manage hazardous waste and respond to any emergencies that are likely to arise. Personnel training can be in the form of on-the-job or classroom training, but must be performed by an instructor who is trained in hazardous waste management procedures. Personnel training must be performed within six months of initial employment and must be renewed annually. The generator's owner or operator also must maintain records in accordance with 40 CFR 265.16(d) to document completion of the training requirements for employees.

7. Waste Analysis and Record Keeping (40 CFR 268.7(a)(5))

Under today's final rule, large quantity generators of F006 wastes who accumulate F006 waste on-site for up to 180 days (or 270 days, as applicable) under the terms of today's rule and who treat their wastes in accumulation tanks, containers, or containment buildings located at the generator's site to meet the applicable land disposal treatment standards under 40 CFR part 268, subpart D, must prepare and follow a written waste analysis plan. The waste analysis plan must describe the procedures the generator will use to comply with the treatment standards for the waste. The waste analysis plan must be based upon a chemical and physical analysis of a representative sample of the generator's waste stream. Hazardous waste generators are required to submit a copy of their waste analysis plans for hazardous wastes treated in 180-day (or 270-day, as applicable) accumulation units to either the authorized state or EPA Regional office prior to conducting treatment. Generators also are required to retain a copy of the waste analysis plan in the generator's files.

VI. State Authority

A. Applicability of Rules in Authorized States

Under section 3006 of RCRA, EPA may authorize qualified states to administer and enforce the RCRA hazardous waste program within the state. (See 40 CFR part 271 for the standards and requirements for authorization). Following authorization, EPA maintains enforcement authority under sections 3008, 7003, and 3013 of RCRA, although authorized states have primary enforcement responsibility.

Prior to the Hazardous and Solid Waste Amendments (HSWA) of 1984, a state with final authorization administered its hazardous waste program entirely in lieu of EPA administering the federal program in that state. The federal requirements no longer applied in the authorized state and EPA could not issue permits for any facility in the state that the state was

authorized to permit. When new, more stringent federal requirements were promulgated or enacted, authorized states had to enact equivalent authority within specified time frames, but new federal requirements did not take effect in an authorized state until the state adopted the requirements as state law.

In contrast, under section 3006(g) of RCRA, 42 U.S.C. 6926(g), new requirements and prohibitions imposed under the HSWA take effect in authorized states at the same time that they take effect in non-authorized states. EPA is directed to implement HSWA requirements and prohibitions in an authorized state, including the issuance of permits, until the state is granted authorization to do so. While states must still adopt HSWA-related provisions as state law to retain final authorization, HSWA applies in authorized states until the states revise their programs and receive authorization for the new provision.

B. Effect on State Authorization

Today's final rule will promulgate regulations that are not effective under HSWA in authorized states. This rule will, therefore, be applicable only in those states that do not have final authorization.

Authorized states are only required to modify their programs when EPA promulgates federal regulations that are more stringent or broader in scope than the authorized state regulations. For those changes that are less stringent than the federal programs, states are not required to modify their programs. This is a result of section 3009 of RCRA, which allows states to impose more stringent regulations than the federal program. Today's final rule for additional accumulation time for large quantity generators of F006 waste is considered less stringent than the existing federal regulations because it allows more than the existing 90 days of accumulation time that is in the existing regulations. Authorized states are not, therefore, required to modify their programs to adopt regulations consistent with, and equivalent to, today's final rule.

Even though states are not required to adopt the additional accumulation time for large quantity generators of F006 waste in this final rule, EPA strongly encourages states to do so as quickly as possible. As discussed above, this final rule is intended to encourage and facilitate recycling of F006 waste. In addition, states participated as stakeholders in the CSI process and presently participate in the NACEPT Committee on Sectors, and EPA is encouraging all states to participate in the metal finishing sector projects and Strategic Goals implementation programs. States are, therefore, urged to adopt today's final rule, and EPA is committed to making efforts to expedite review of authorized state program revision applications that incorporate this final rule.

VII. Effective Date

This final rule is effective immediately. Section 3010(b)(1) of RCRA allows EPA to promulgate an immediately effective rule where the Administrator finds that the regulated community does not need additional time to come into compliance with the rule. Similarly, the Administrative Procedures Act (APA) provides for an immediate effective date for rules that relieve a restriction (see 5 U.S.C. 553(d)(1)).

This rule does not impose any requirements on the regulated community; rather, the rule provides flexibility in the regulations with which the regulated community is required to comply. The Agency finds that the regulated community does not need six months to come into compliance.

VIII. Technical Correction

The Agency is correcting a reference to section 268 that appears in § 262.34(a)(4). § 262.34(a) identifies the conditions under which a generator may accumulate hazardous waste on-site for 90 days without a permit and refers to the Land Disposal Restriction Testing, Tracking and Recordkeeping Requirements for generators in § 268.7(a). The LDR Phase IV Rule, finalized on May 12, 1997 (62 FR 26091), changed the numbering of § 268.7(a) so that what used to be § 268.7(a)(4) became § 268.7(a)(5). However, the corresponding reference to this section in 262.34(a)(4) was not changed. Therefore the Agency is making this correction today. A similar correction in the accumulation time regulations for Small Quantity Generators (generators of over 100 kilograms but less than 1000 kilograms of hazardous waste in a calendar month) in § 262.34(d)(4) was finalized on May 11, 1999 (64 FR 25414). In the proposed rule, § 262.34(g)(v) included this same incorrect reference. In the final rule this has been changed to refer to § 268.7(a)(5) instead.

IX. Regulatory Analyses

A. Executive Order 12866: Determination of Significance

Under Executive Order 12866, (58 FR 51,735, October 4, 1993) the Agency must determine whether a regulatory action is ''significant'' and therefore subject to Office of Management and Budget review and the requirements of the Executive Order. The Order defines ''significant regulatory action'' as one that is likely to result in a rule that may: (1) Have an annual effect on the economy of $100 million or more or adversely affect in a material way the economy, a sector of the economy, productivity, competition, jobs, the environment, public health or safety, or State, local, or tribal governments or communities; (2) create a serious inconsistency or otherwise interfere with an action taken or planned by another agency; (3) materially alter the budgetary impact of entitlements, grants, user fees, or loan programs or the rights and obligations of recipients thereof; or (4) raise novel legal or policy issues arising out of legal mandates, the President's priorities, or the principles set forth in the Executive Order.''

The Agency estimated the costs of today's final rule to determine if it is a significant regulation as defined by the Executive Order. The analysis considered compliance costs and economic impacts for F006 wastes affected by this rule. EPA estimates the total cost of the rule to be a savings in the range of $4.2 million to $5.3 million annually, and concludes that this rule is not economically significant according to the definition in E.O. 12866. Moreover, the Agency believes that this rule is not significant because it does not create serious inconsistency with actions taken or planned by another agency, or materially alter budgetary impact or rights and obligations of recipients. The Office of Management and Budget, however, has deemed this rule to be significant for novel policy reasons and has reviewed this rule.

Detailed discussions of the methodology used for estimating the costs, the economic impacts, and the benefits attributable to today's proposed rule for on-site accumulation of F006 wastes, followed by a presentation of the cost, economic impact, and benefit results, may be found in the background document: ''Regulatory Impact Analysis of the Proposed Rule for a 180-Day Accumulation Time for F006 Wastewater Treatment Sludges,'' which is placed in the docket for today's final rule. A summary of this methodology and the results follows.

1. Methodology of Regulatory Impact Analysis

The Agency examined reported values for F006 waste generation from the 1995 Biennial Reporting Systems (BRS) database to estimate the volumes of F006 waste affected by today's rule, to

determine the national level incremental costs (for both the baseline and post-regulatory scenarios), economic impacts (including first-order measures such as the estimated percentage of compliance cost to industry or firm revenues), and benefits.

EPA evaluated two options in completing the economic analysis for this rule. The first option (hereafter Option 1) evaluated a maximum accumulation of 17.7 tons (16,000 kg) of material in a 180-day time period (or 270 days if the modeled shipment exceed 200 miles). The second option (hereafter Option 2) evaluated a maximum accumulation of 22 tons (20,000 kg) in a 180-day time period (or 270 days if the modeled shipment exceeded 200 miles). The second option was added based on information (presented by commenters and confirmed by the Agency) that a 20 to 22 ton load more accurately represented a full truck load.

2. Results

a. Volume Results

The BRS database reports that in 1995 there were 1,483 metal finishing firms potentially affected by today's rule. The data report that these firms generated 35,976 tons of F006 waste annually that are eligible to benefit from today's proposed rule. EPA is aware that this estimate on the number of firms that could benefit from today's proposal probably underestimates the total number of firms affected by today's rulemaking. Information available from other sources indicates that there are more than 11,000 metal finishing establishments in the United States. For example, one source estimates that there are 8,000 ''captive'' shops (where the metal finishing operation is contained inside a larger manufacturing operation) and 3,000 ''job shops'' or ''independent'' metal finishing operations (usually small businesses that operate on a contract basis). In contrast, the most recent BRS data only account for about three thousand of this total. Thus, it is likely that cost savings and benefits associated with this rulemaking are greater than estimated below.

b. Cost Results

For today's final rule, EPA has estimated a cost savings associated with a 180-day accumulation time (or 270 days where transport distance exceeds 200 miles) for large quantity generators of F006 waste. The total annual incremental savings is estimated to be between $3.9 million and $5.0 million for Option 1 and $4.2 million and $5.3 million for Option 2.[6] These savings may result from reducing the total number of shipments of F006 waste off-site for recycling. Savings also may result from a lower cost per ton of transportation because generators are able to accumulate more F006 waste for a shipment off-site and the cost per unit of F006 waste transportation (for the fixed cost portion of the transportation) is less for a full truck as compared to a partial truck load. In addition, literature reviewed in the development of this rulemaking indicates that recyclers sometimes assess a surcharge for small volumes of material due to increased handling and administrative costs.[7] It is possible that a 180-day (or 270-day, if applicable) accumulation time will allow some F006 waste generators to reduce this surcharge.

3. Economic Impact Results

To estimate potential economic impacts resulting from today's proposed rule, EPA has used first order economic impacts measures such as the estimated cost savings of today's proposed rule as a percentage of sales/revenues. EPA has applied this measure to affected F006 waste generators. For affected F006 waste generators, EPA has estimated the cost savings to be less than one percent of a typical metal finisher's sales or revenues. More detailed information on this estimate can be found in the regulatory impact analysis placed into today's docket.

a. Benefits Assessment

The Agency has performed a qualitative benefits assessment for today's final rule. EPA believes that a relatively small, but significant percentage of total F006 waste generated would be diverted from land disposal to off-site recycling. This shift from land disposal to recycling should result in a conservation of natural resources associated with primary mineral extraction, including reduced water and energy inputs as well as reduced solid waste outputs (*e.g.*, slag, tailings, and overburden). Other benefits expected from today's proposed rule include conservation of hazardous waste landfill capacity, reduced balance of payments for nonferrous mineral commodities, and conservation of strategic metals.[8]

B. Regulatory Flexibility Act (RFA), as Amended by the Small Business Regulatory Enforcement Fairness Act of 1996 (SBREFA), 5 U.S.C. 601 et seq.

The RFA generally requires an agency to prepare a regulatory flexibility analysis of any rule subject to notice and comment rulemaking requirements under the Administrative Procedure Act or any other statute, unless the agency certifies that the rule will not have a significant economic impact on a substantial number of small entities. Small entities include small businesses, small organizations, and small governmental jurisdictions.

For purposes of assessing the impacts of today's rule on small entities, small entity is defined as: (1) A small business that has fewer than 1000, 750, or 500 employees per firm depending upon the SIC code the firm is primarily classified in;[9] (2) a small governmental jurisdiction that is a government of a city, county, town, school district or special district with a population of less than 50,000; or (3) a small organization that is any not-for-profit enterprise which is independently owned and operated and is not dominant in its field.

After considering the economic impacts of today's final rule on small entities, we have determined that this action will not have a significant economic impact on a substantial number of small entities.

In determining whether a rule has a significant economic impact on a substantial number of small entities, the

[6] This range of estimated savings results from uncertainty surrounding a number of other factors that affect a generator's ability and interest in sending F006 to either recycling or landfilling. These factors include: (1) The metal value of sludge, (2) the proximity to the nearest landfill, (3) the presence of tramp constituents in the sludge, (4) real or perceived risk of Superfund liability, (5) the ability of several generators to accumulate a full truck load in less than 90 days, and other factors. For more information, see Section 2.3 of the Regulatory Impact Analysis for this final rule.

[7] George C. Cushnie Jr., National Center for Manufacturing Sciences & National Association of Metal Finishers, Pollution Prevention and Control Technology for Plating Operations (Ann Arbor, MI: National Center for Manufacturing Sciences, 1994), p.312.

[8] For more information on balance of trade for nonferrous minerals and conservation of strategic metals, see U.S. Environmental Protection Agency, Report to Congress on Metal Recovery, Environmental Regulation and Hazardous Wastes (Washington D.C., U.S.EPA, 1994), Chapter 7.

[9] F006 is generated by manufacturing firms across a number of SIC codes including 3471, Electroplating, Plating, Polishing, Anodizing and Coloring; 3672, Printed Circuit Boards and other manufacturing SICs. The Small Business Administration has classified firms in the manufacturing sector (SIC Codes 20–39) as small businesses within the sector based on the number of employees per firm. The classification system uses either 500, 750 or 1000 employees depending upon which SIC code. See Small Business Size Standards, 61 FR 3280, 3289 (January 31, 1996). Thus, to determine if a generator of F006 is a small business, the primary SIC code of the firm would have to be determined. Most independent electroplaters or ''job shops'' are in the 3471 SIC code which has a size standard of 500 employees. Captive platers (those plating operations within a larger manufacturing operation) will have size standards of either 500, 750 or 1000 employees.

impact of concern is any significant *adverse* economic impact on small entities, since the primary purpose of the regulatory flexibility analyses is to identify and address regulatory alternatives ''which minimize any significant economic impact of the proposed rule on small entities'' (5 U.S.C. 603 and 604). Thus, an agency may certify that a rule will not have a significant economic impact on a substantial number of small entities if the rule relieves regulatory burden, or otherwise has a positive economic effect on all of the small entities subject to the rule. Data indicate that virtually all independent electroplaters or job shops are small entities.[10] Captive shops contain both large and small entities. Data on captive plating operations is, however, more limited. The regulatory impact analysis completed for this final rule indicated that of 3,296 job shops, all but 2 are small entities. BRS data indicates that a total of 1,934 plating facilities, including both captive and independent operations, generate F006 waste and 1,483 of these firms are potentially affected by today's rule. Although the BRS data does not indicate what proportion of these affected generators are small entities, it is likely that the majority of these affected generators are small entities, because the plating firms most likely to be affected by this final rule generate the smallest quantities of F006 (which is related to both facility size and product output). This final rule would not have a significant economic impact on a substantial number of small entities because today's final rule would relieve regulatory burden for metal finishers and captive operations by allowing them up to 180 days (or 270 days under certain circumstances) instead of 90 days to accumulate F006 wastes on-site. The Agency estimates that this final rule would lead to an overall cost savings in the range of $4.2 to $5.3 million annually. The rule does not impose new burdens on small entities. We have therefore concluded that today's final rule will relieve regulatory burden for all small entities.

C. Paperwork Reduction Act

The Office of Management and Budget (OMB) has approved the information collection requirements contained in this final rule under the provisions of the Paperwork Reduction Act (44 U.S.C. 3501 *et seq.*) and has assigned OMB control number 2050–0035. An Information Collection Request (ICR) document was prepared by EPA (ICR Control Number 0820.07) and a copy may be obtained from Sandy Farmer by mail at OP Regulatory Information Division; U.S. Environmental Protection Agency (2137); Ariel Rios Building; 1200 Pennsylvania Avenue, NW; Washington, DC 20460, by e-mail at farmer.sandy@epamail.epa.gov, or by calling (202) 260–2740. A copy may also be downloaded off the internet at http://www.epa.gov/icr.

EPA believes the changes in this final rule do not constitute a substantive or material modification to the information collection requirements. This final rule will not change any of the information collection requirements that are currently applicable to large quantity generators of F006 waste that accumulate the waste on-site. The recordkeeping and reporting requirements of this final rule are identical to the requirements already promulgated and covered under the existing Information Collection Request (ICR). There is no net increase in recordkeeping and reporting requirements. As a result, the reporting, notification, or recordkeeping (information) provisions of this rule will not need to be submitted for approval to the Office of Management and Budget (OMB) under section 3504(b) of the Paperwork Reduction Act (44 U.S.C. 3501 *et seq.*).

The Agency estimates total projected burden hours associated with the information collection requirements of this final rule to be approximately 13.19 hours per year for each generator. This is the same burden associated with the information collection requirements for large quantity generators who currently accumulate waste on-site for less than 90 days under the existing regulations. These information collection requirements include: (1) Pre-transport informational requirements specific to large quantity generators (e.g., personnel training, contingency planning and emergency procedures, tank systems, containment buildings, and requests for extension of accumulation period); (2) air emission standards for process vents; (3) air emission standards for equipment leaks; and (4) recordkeeping and reporting. Burden means the total time, effort, or financial resources expended by persons to generate, maintain, retain, or disclose or provide information to or for a Federal agency. This includes the time needed to review instructions; to develop, acquire, install, and utilize technology and systems for the purposes of collecting, validating, and verifying information, processing and maintaining information, and disclosing and providing information; to adjust the existing ways to comply with any previously applicable instructions and requirements; to train personnel to be able to respond to a collection of information; to search data sources; to complete and review the collection of information; and to transmit or otherwise disclose the information.

An agency may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a currently valid OMB control number. The OMB control numbers for EPA's regulations are listed in 40 CFR part 9 and 48 CFR Chapter 15.

D. Unfunded Mandates Reform Act

Title II of the Unfunded Mandates Reform Act of 1995 (UMRA), Public Law 104–4, establishes requirements for Federal agencies to assess the effects of their regulatory actions on State, local, and tribal governments and the private sector. Under section 202 of the UMRA, EPA generally must prepare a written statement, including a cost-benefit analysis, for proposed and final rules with ''Federal mandates'' that may result in expenditures to State, local, and tribal governments, in the aggregate, or to the private sector, of $100 million or more in any one year. Before promulgating an EPA rule for which a written statement is needed, section 205 of the UMRA generally requires EPA to identify and consider a reasonable number of regulatory alternatives and adopt the least costly, most cost-effective or least burdensome alternative that achieves the objectives of the rule. The provisions of section 205 do not apply when they are inconsistent with applicable law. Moreover, section 205 allows EPA to adopt an alternative other than the least costly, most cost-effective or least burdensome alternative if the Administrator publishes with the final rule an explanation why that alternative was not adopted. Before EPA establishes any regulatory requirements that may significantly or uniquely affect small governments, including tribal governments, it must have developed under section 203 of the UMRA a small government agency plan. The plan must provide for notifying potentially affected small governments, enabling officials of affected small governments to have meaningful and timely input in the development of EPA regulatory proposals with significant Federal intergovernmental mandates, and informing, educating, and advising small governments on compliance with the regulatory requirements.

Today's rule contains no Federal mandates (under the regulatory

[10] See U.S.E.P.A. Office of Solid Waste and Emergency Response, Regulatory Impact Analysis of 180-day Accumulation Time for F006 Wastewater Treatment Sludges, September 30, 1999, p. 13.

provisions of Title II of the UMRA) for State, local, or tribal governments or the private sector. The rule would not impose any federal intergovernmental mandate because it imposes no enforceable duty upon State, tribal or local governments. States, tribes and local governments would have no compliance costs under this rule. It is expected that states will adopt similar rules, and submit those rules for inclusion in their authorized RCRA programs, but they have no legally enforceable duty to do so. Thus, today's rule is not subject to the requirements of Sections 202 and 205 of the UMRA. For the same reasons, EPA also has determined that this rule contains no regulatory requirements that might significantly or uniquely affect small governments.

E. Executive Order 13132: Federalism

Executive Order 13132, entitled ''Federalism'' (64 FR 43255, August 10, 1999), requires EPA to develop an accountable process to ensure ''meaningful and timely input by State and local officials in the development of regulatory policies that have federalism implications.'' The term ''policies that have federalism implications'' is defined in the Executive Order to include regulations that have ''substantial direct effects on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government.'' Under Section 6 of Executive Order 13132, EPA may not issue a regulation that has federalism implications, that imposes substantial direct compliance costs, and that is not required by statute, unless the Federal government provides the funds necessary to pay the direct compliance costs incurred by State and local governments, or EPA consults with State and local officials early in the process of developing the proposed regulation. EPA also may not issue a regulation that has federalism implications and that preempts State law unless the Agency consults with State and local officials early in the process of developing the proposed regulation.

This final rule does not have federalism implications. It will not have substantial direct effects on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government, as specified in Executive Order 13132. This rule imposes no intergovernmental obligations on States. As discussed in Section VI (State Authority), today's rule is less stringent than the existing federal RCRA program; therefore, authorized states are not required to modify their programs to adopt regulations consistent with, and equivalent to, today's final rule. States that do not have a final authorized RCRA program also have no regulatory obligations as a result of today's rule because EPA will be responsible for implementing this rule in non-authorized states. Thus, the requirements of section 6 of the Executive Order do not apply to this rule.

Although section 6 of Executive Order 13132 does not apply to this rule, EPA did consult with State and local officials in developing this rule. The CSI metal finishing subcommittee included members representing state and local governments. Please refer to Section II.B. of this preamble for further information on the role of the CSI metal finishing subcommittee in developing this rule.

F. Executive Order 13084: Consultation and Coordination With Indian Tribal Governments

Under Executive Order 13084, EPA may not issue a regulation that is not required by statute, that significantly or uniquely affects the communities of Indian tribal governments, and that imposes substantial direct compliance costs on those communities, unless the Federal government provides the funds necessary to pay the direct compliance costs incurred by the tribal governments, or EPA consults with those governments. If EPA complies by consulting, Executive Order 13084 requires EPA to provide to the Office of Management and Budget, in a separately identified section of the preamble to the rule, a description of the extent of EPA's prior consultation with representatives of affected tribal governments, a summary of the nature of their concerns, and a statement supporting the need to issue the regulation. In addition, Executive Order 13084 requires EPA to develop an effective process permitting elected officials and other representatives of Indian tribal governments ''to provide meaningful and timely input in the development of regulatory policies on matters that significantly or uniquely affect their communities.''

This final rule does not create a mandate for tribal governments, nor does it impose any enforceable duties on these entities. Accordingly, the requirements of section 3(b) of Executive Order 13084 do not apply to this rule.

G. Executive Order 13045: Protection of Children From Environmental Health Risks and Safety Risks

Executive Order 13045, entitled ''Protection of Children from Environmental Health Risks and Safety Risks'' (62 FR 19885, April 23, 1997), applies to any rule that (1) is ''economically significant'' as defined under Executive Order 12866, and (2) concerns an environmental health or safety risk that an agency has reason to believe may disproportionately affect children. If the regulatory action meets both criteria, the Agency must evaluate the environmental health or safety effects of the planned rule on children and explain why the planned regulation is preferable to other potentially effective and reasonably feasible alternatives considered by the Agency. This final rule is not subject to Executive Order 13045, because this is not an economically significant regulatory action as defined by Executive Order 12866 and the Agency does not have reason to believe the environmental health risks or safety risks addressed by this action present a disproportionate risk to children.

Because this rulemaking retains current waste management standards for large quantity generators accumulating hazardous wastes on-site without a permit (40 CFR 262.34), EPA believes that the new 180-day (or 270-day, where applicable) accumulation period will not result in increased exposures to children. These provisions are discussed in detail in Section V.E. of this rule. EPA believes that these provisions are protective of human health and the environment and minimize the likelihood of exposure to hazardous waste held in these units.

H. National Technology Transfer and Advancement Act of 1995

Section 12(d) of the National Technology Transfer and Advancement Act of 1995 (NTTAA), Public Law 104–113, section 12(d) (15 U.S.C. 272 note) directs EPA to use voluntary consensus standards in its regulatory activities unless to do so would be inconsistent with applicable law or otherwise impractical. Voluntary consensus standards are technical standards (*e.g.*, materials specifications, test methods, sampling procedures, and business practices) that are developed or adopted by voluntary consensus standards bodies. The NTTAA directs EPA to provide Congress, through OMB, explanations when the Agency decides not to use available and applicable voluntary consensus standards. This final rulemaking does not involve

technical standards. EPA has not, therefore, used any voluntary consensus standards.

I. Executive Order 12898: Environmental Justice

EPA is committed to addressing environmental justice concerns and is assuming a leadership role in environmental justice initiatives to enhance environmental quality for all populations in the United States. The Agency's goals are to ensure that no segment of the population, regardless of race, color, national origin, or income bears disproportionately high and adverse human health or environmental impacts as a result of EPA's policies, programs, and activities, and that all people live in safe and healthful environments. In response to Executive Order 12898 and to concerns voiced by many groups outside the Agency, EPA's Office of Solid Waste and Emergency Response formed an Environmental Justice Task Force to analyze the array of environmental justice issues specific to waste programs and to develop an overall strategy to identify and address these issues (OSWER Directive No. 9200.3–17).

Today's final rule covers F006 wastes from metal finishing operations. It is not certain whether the environmental problems addressed by this rule could disproportionately affect minority or low-income communities, due to the location of some metal finishing operations. Metal finishing operations are distributed throughout the country and many are located within highly populated areas. Because today's final rule retains provisions for large quantity generators of F006 waste to accumulate F006 waste in protective Subpart J tanks, Subpart I containers or Subpart DD container buildings, the Agency does not believe that today's rule will increase risks from F006 waste. These provisions are discussed in further detail in Section V.E. of this rule. It is, therefore, not expected to have any disproportionately high adverse human health or environmental effects on minority or low-income communities relative to affluent or non-minority communities.

J. Submission to Congress and General Accounting Office

The Congressional Review Act (5 U.S.C. 801(a)(1)(A)) as added by the Small Business Regulatory Enforcement Fairness Act of 1996, generally provides that before a rule may take effect, the agency promulgating the rule must submit a report, which includes a copy of the rule, to each House of the Congress and to the Comptroller General of the United States. EPA will submit a report containing this rule and other required information to the U.S. Senate, the U.S. House of Representatives, and the Comptroller General of the General Accounting Office prior to the publication of this rule in this **Federal Register**. A major rule cannot take effect until 60 days after it is published in the **Federal Register**. This rule is not a ''major rule'' as defined by 5 U.S.C. 804(2). This rule will be effective on March 8, 2000.

List of Subjects in 40 CFR Part 262

Environmental protection, Hazardous materials transportation, Hazardous waste, Labeling, Packaging and containers, Reporting and recordkeeping requirements.

Dated: March 1, 2000.

Carol M. Browner,

Administrator.

For the reasons set forth in the preamble, EPA is amending 40 CFR part 262 as follows:

PART 262—STANDARDS APPLICABLE TO GENERATORS OF HAZARDOUS WASTE

1. The authority citation for part 262 continues to read as follows:

Authority: 42 U.S.C. 6906, 6912, 6922–6925, 6937, and 6938.

2. Section 262.34 is amended by revising paragraph (a)(4) and adding new paragraphs (g), (h), and (i) to read as follows:

§ 262.34 Accumulation time.

* * * * *

(a) * * *

(4) The generator complies with the requirements for owners or operators in Subparts C and D in 40 CFR part 265, with § 265.16, and with 40 CFR 268.7(a)(5).

* * * * *

(g) A generator who generates 1,000 kilograms or greater of hazardous waste per calendar month who also generates wastewater treatment sludges from electroplating operations that meet the listing description for the RCRA hazardous waste code F006, may accumulate F006 waste on-site for more than 90 days, but not more than 180 days without a permit or without having interim status provided that:

(1) The generator has implemented pollution prevention practices that reduce the amount of any hazardous substances, pollutants or contaminants entering F006 or otherwise released to the environment prior to its recycling;

(2) The F006 waste is legitimately recycled through metals recovery;

(3) No more than 20,000 kilograms of F006 waste is accumulated on-site at any one time; and

(4) The F006 waste is managed in accordance with the following:

(i) The F006 waste is placed:

(A) In containers and the generator complies with the applicable requirements of subparts I, AA, BB, and CC of 40 CFR part 265; and/or

(B) In tanks and the generator complies with the applicable requirements of subparts J, AA, BB, and CC of 40 CFR part 265, except §§ 265.197(c) and 265.200; and/or

(C) In containment buildings and the generator complies with subpart DD of 40 CFR part 265, and has placed its professional engineer certification that the building complies with the design standards specified in 40 CFR 265.1101 in the facility's operating record prior to operation of the unit. The owner or operator must maintain the following records at the facility:

(*1*) A written description of procedures to ensure that the F006 waste remains in the unit for no more than 180 days, a written description of the waste generation and management practices for the facility showing that they are consistent with the 180-day limit, and documentation that the generator is complying with the procedures; or

(*2) Documentation that the unit is emptied at least once every 180 days.*

(ii) In addition, such a generator is exempt from all the requirements in subparts G and H of 40 CFR part 265, except for §§ 265.111 and 265.114.

(iii) The date upon which each period of accumulation begins is clearly marked and visible for inspection on each container;

(iv) While being accumulated on-site, each container and tank is labeled or marked clearly with the words, ''Hazardous Waste;'' and

(v) The generator complies with the requirements for owners or operators in subparts C and D in 40 CFR part 265, with 40 CFR 265.16, and with 40 CFR 268.7(a)(5).

(h) A generator who generates 1,000 kilograms or greater of hazardous waste per calendar month who also generates wastewater treatment sludges from electroplating operations that meet the listing description for the RCRA hazardous waste code F006, and who must transport this waste, or offer this waste for transportation, over a distance of 200 miles or more for off-site metals recovery, may accumulate F006 waste on-site for more than 90 days, but not more than 270 days without a permit or without having interim status if the generator complies with the

requirements of paragraphs (g)(1) through (g)(4) of this section.

(i) A generator accumulating F006 in accordance with paragraphs (g) and (h) of this section who accumulates F006 waste on-site for more than 180 days (or for more than 270 days if the generator must transport this waste, or offer this waste for transportation, over a distance of 200 miles or more), or who accumulates more than 20,000 kilograms of F006 waste on-site is an operator of a storage facility and is subject to the requirements of 40 CFR parts 264 and 265 and the permit requirements of 40 CFR part 270 unless the generator has been granted an extension to the 180-day (or 270-day if applicable) period or an exception to the 20,000 kilogram accumulation limit. Such extensions and exceptions may be granted by EPA if F006 waste must remain on-site for longer than 180 days (or 270 days if applicable) or if more than 20,000 kilograms of F006 waste must remain on-site due to unforeseen, temporary, and uncontrollable circumstances. An extension of up to 30 days or an exception to the accumulation limit may be granted at the discretion of the Regional Administrator on a case-by-case basis.

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